```
=> file reg
FILE 'REGISTRY' ENTERED AT 11:34:32 ON 29 AUG 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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=> d his

     FILE 'LREGISTRY' ENTERED AT 10:36:42 ON 29 AUG 2003
L1                STR

     FILE 'REGISTRY' ENTERED AT 10:50:19 ON 29 AUG 2003
L2                SCR 1602 AND 1312 AND 1404
L3              1 S L1 AND L2
L4            100 S L1 AND L2 FUL
                  SAV L4 LEE288/A

     FILE 'CAOLD' ENTERED AT 10:54:03 ON 29 AUG 2003
L5             13 S L4

     FILE 'ZCAPLUS' ENTERED AT 10:54:22 ON 29 AUG 2003
L6             58 S L4

     FILE 'LREGISTRY' ENTERED AT 10:57:44 ON 29 AUG 2003
L7                STR
L8                SCR 1404

     FILE 'REGISTRY' ENTERED AT 11:08:16 ON 29 AUG 2003
L9             50 S L8

     FILE 'REGISTRY' ENTERED AT 11:09:02 ON 29 AUG 2003
L10               SCR 1602 AND 1404
L11            50 S L7 AND L8
L12            50 S L7 AND L10

     FILE 'HCAPLUS' ENTERED AT 11:13:12 ON 29 AUG 2003
L13            95 S L11 OR L12
L14         77193 S RESIST OR RESISTS OR PHOTORESIST?
L15             0 S L13 AND L14

     FILE 'LREGISTRY' ENTERED AT 11:39:06 ON 29 AUG 2003
L16               STR L1

     FILE 'REGISTRY' ENTERED AT 11:42:56 ON 29 AUG 2003
L17               SCR 1312 AND 1404
L18             0 S L16 AND L17
L19           244 S L16 AND L17 FUL
L20           144 S L19 NOT L4

     FILE 'ZCAPLUS' ENTERED AT 11:45:46 ON 29 AUG 2003
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L21          100 S L20
L22       152471 S RESIST OR RESISTS OR PHOTORESIST? OR MASK? OR PHOTOMASK
L23            1 S L21 AND L22

     FILE 'REGISTRY' ENTERED AT 11:48:32 ON 29 AUG 2003
L24              SCR 1267
L25            5 S L16 NOT L24 SSS SAM SUB=L19
L26          144 S L16 NOT L24 SSS FUL SUB=L19
L27           72 S L26 NOT L4

     FILE 'ZCAPLUS' ENTERED AT 11:51:24 ON 29 AUG 2003
L28           63 S L27
L29           49 S L28 NOT (L23 OR L6)


=> d l19 que stat
L16              STR
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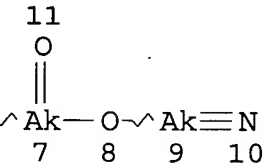


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CONNECT IS X3  RC AT   6
CONNECT IS E3  RC AT   7
CONNECT IS E2  RC AT   9
DEFAULT MLEVEL IS ATOM
GGCAT   IS SAT  AT   7
GGCAT   IS SAT  AT   9
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M2-X5 C  AT   7
ECOUNT  IS M2-X5 C  AT   9

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   6

STEREO ATTRIBUTES: NONE
L17              SCR 1312 AND 1404
L19          244 SEA FILE=REGISTRY SSS FUL L16 AND L17

100.0% PROCESSED 133184 ITERATIONS                      244 ANSWERS
SEARCH TIME: 00.00.02


=> file caold
FILE 'CAOLD' ENTERED AT 11:34:48 ON 29 AUG 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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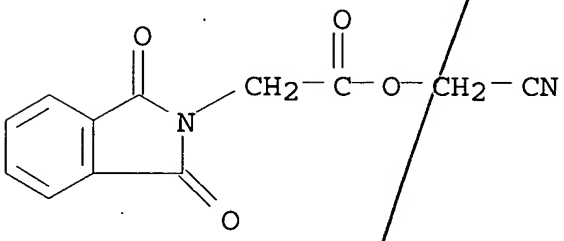
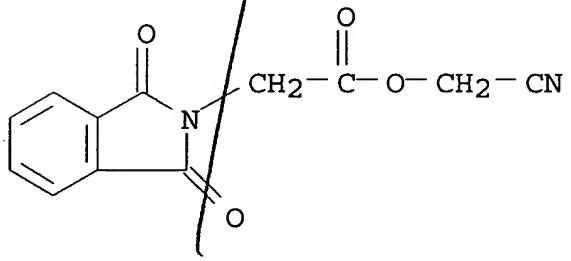
=> d l5 1-13 all hitstr

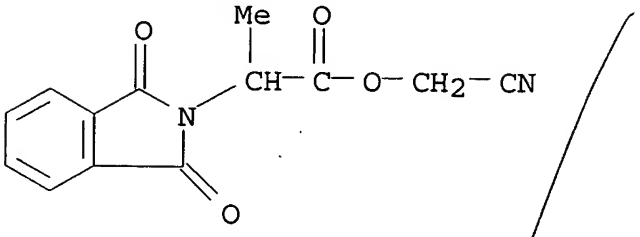
L5 ANSWER 1 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA64:5201d CAOLD
TI glycolamide esters of N-acylamino acids and peptides
AU Stewart, Frederick H. C.
IT 2899-56-1 **3589-47-7** 4816-84-6 4816-85-7 4816-86-8
4816-87-9 4816-89-1 4816-90-4 4816-91-5 4816-92-6
4816-93-7 4816-94-8 4816-97-1 4840-48-6 4840-49-7
5680-70-6
IT **3589-47-7**
RN 3589-47-7 CAOLD
CN 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile (7CI, 8CI) (CA INDEX NAME)



L5 ANSWER 2 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA63:16452g CAOLD
TI nitrile group in peptide chemistry - (VI) prepn. of optically active N-protected amino nitriles from N-protected amino acids
AU Liberek, Bogdan; Nowicka, A.; Szrek, J.
IT 3589-41-1 3589-42-2 3589-44-4 3589-45-5 **3589-47-7**
3842-20-4 91135-57-8 91397-10-3 93879-62-0 **95708-10-4**
97788-81-3 98638-19-8
IT **3589-47-7** **95708-10-4**
RN 3589-47-7 CAOLD
CN 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile (7CI, 8CI) (CA INDEX NAME)

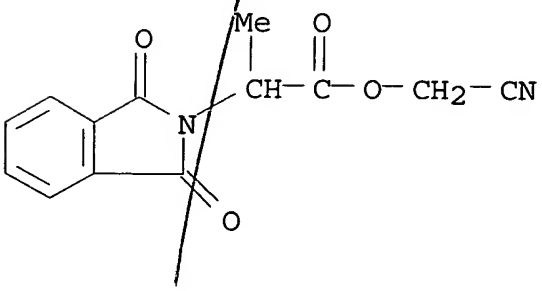


RN 95708-10-4 CAOLD
CN 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile (7CI) (CA INDEX NAME)



L5 ANSWER 3 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA63:16452b CAOLD
TI tumor chemotherapy-syntheses of N-acetyl-N-[3-[bis-(.beta.-chloroethyl)amino]-6-methylphenyl]glycine and its demethyl analogs
AU Sun, Han-Li; Shen, H. Y.; Shu, H. L.; Weng, T. Y.
IT 3131-73-5 3131-74-6 **3338-38-3** 3415-82-5 3589-40-0
3589-43-3 3589-46-6 3589-49-9 3589-50-2 3589-51-3
3589-52-4 3589-57-9 3589-58-0 3589-59-1 3589-60-4
3589-61-5 3589-62-6 3589-63-7 3589-64-8 3589-65-9
3589-66-0 3589-67-1 3589-68-2 3589-69-3 3589-70-6
3712-74-1 3997-73-7
IT **3338-38-3**
RN 3338-38-3 CAOLD

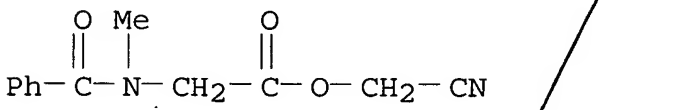
L5 ANSWER 4 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA63:13405f CAOLD
TI way for the formation of peptide bonds without racemization
AU Taschner, Emil; Rzeszotarska, B.; Kuziel, A.
IT 2899-56-1 3338-35-0 3338-36-1 3338-37-2 **3338-38-3**
3480-79-3 7663-85-6 **95708-10-4**
IT **3338-38-3** **95708-10-4**
RN 3338-38-3 CAOLD
RN 95708-10-4 CAOLD
CN 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile (7CI) (CA INDEX NAME)



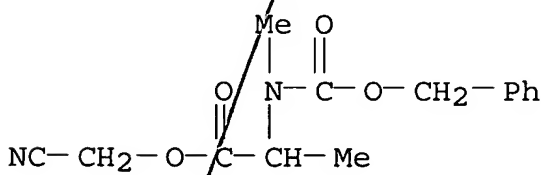
L5 ANSWER 5 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA63:5732a CAOLD
TI 2-[N,N-bis(carboxymethyl)]amino-2-deoxy-D-glycero-D-gulo-heptonic acid
PA Pfizer, Chas., & Co., Inc.
DT Patent

PATENT NO.	KIND	DATE
GB 989926		
FR 1397889		
JP 65009135		1965

IT 134-03-2 2644-95-3 2644-96-4 2644-97-5 2644-98-6
2644-99-7 2645-00-3 2645-01-4 2645-02-5 2645-03-6
2645-04-7 4421-82-3 92274-72-1
IT **2645-04-7**
RN 2645-04-7 CAOLD
CN Hippuric acid, N-methyl-, ester with hydroxyacetonitrile (8CI) (CA INDEX NAME)

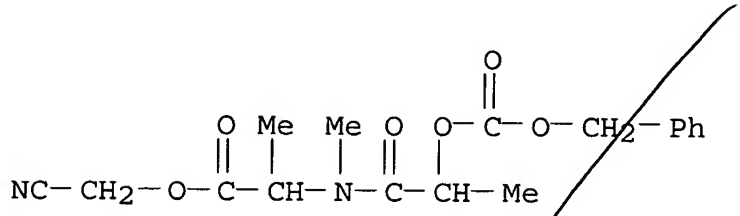


L5 ANSWER 6 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA61:13415a CAOLD
TI synthesis of depsipeptides
AU Losse, Guenter; Bachmann, G.
IT 2051-96-9 2528-18-9 4026-18-0 64404-11-1 89600-78-2
91738-83-9 91970-35-3 **92256-49-0** 95011-47-5 95119-42-9
97437-60-0 97442-17-6 97442-18-7 97834-47-4 **98657-88-6**
98717-12-5 99872-11-4 99889-14-2 100734-85-8 100930-98-1
101057-55-0 101502-22-1 101521-61-3 101608-16-6 101608-17-7
101608-18-8 103103-69-1 103672-07-7 104781-06-8 105069-19-0
105087-54-5 106299-14-3 106545-42-0 107038-39-1 111637-20-8
IT **92256-49-0 98657-88-6**
RN 92256-49-0 CAOLD
CN Alanine, N-carboxy-N-methyl-, N-benzyl ester, ester with glycolonitrile (7CI) (CA INDEX NAME)



RN 98657-88-6 CAOLD
CN Alanine, N-lactoyl-N-methyl-, ester with glycolonitrile, benzyl

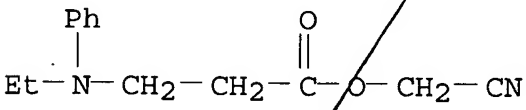
carbonate (7CI) (CA INDEX NAME)



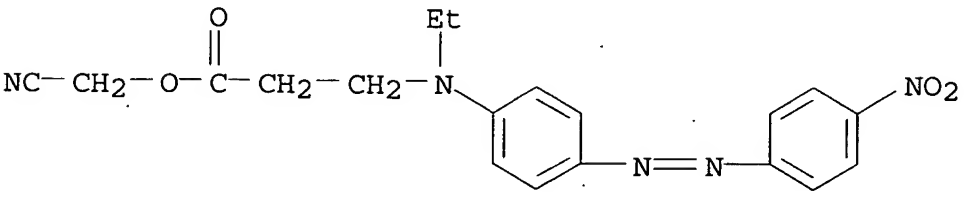
L5 ANSWER 7 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA60:16021a CAOLD
TI azo dyes
AU Fishwick, Brian R.; Wardleworth, J.
DT Patent
TI dyes (azo)
PA Imperial Chemical Industries Ltd.
DT Patent

PATENT NO.	KIND	DATE
PI US 3097198		1963
GB 909843		

IT **41314-02-7 72595-16-5 94308-22-2**
95128-33-9 95318-56-2 95365-62-1
100001-77-2 100086-78-0 103480-69-9
IT **41314-02-7 72595-16-5 94308-22-2**
95128-33-9 95318-56-2 95365-62-1
RN 41314-02-7 CAOLD
CN .beta.-Alanine, N-ethyl-N-phenyl-, cyanomethyl ester (9CI) (CA INDEX NAME)

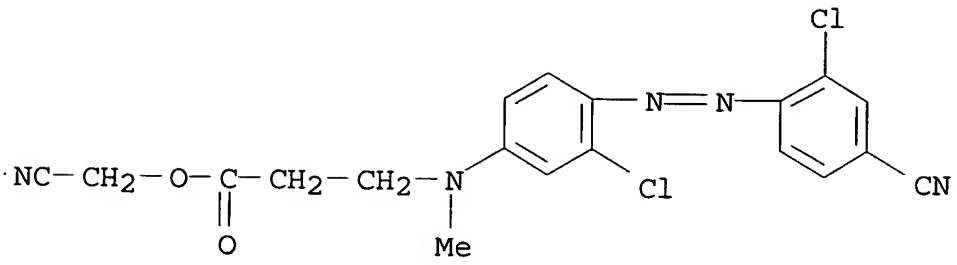


RN 72595-16-5 CAOLD
CN .beta.-Alanine, N-ethyl-N-[4-[(4-nitrophenyl)azo]phenyl]-, cyanomethyl ester (9CI) (CA INDEX NAME)

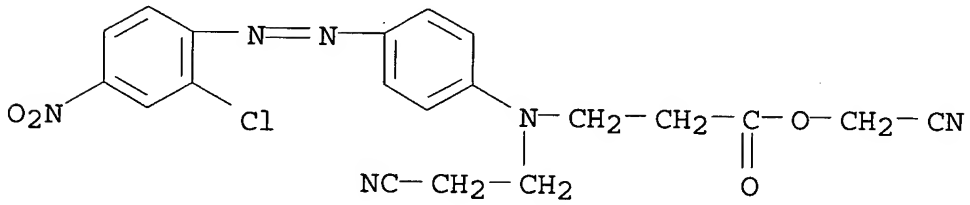


RN 94308-22-2 CAOLD

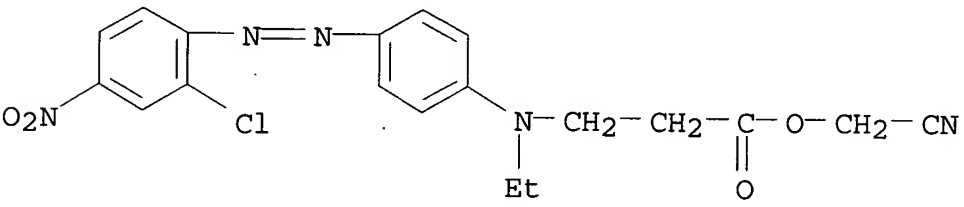
CN .beta.-Alanine, N-[3-chloro-4-[(2-chloro-4-cyanophenyl)azo]phenyl]-N-methyl-, ester with glycolonitrile (7CI) (CA INDEX NAME)



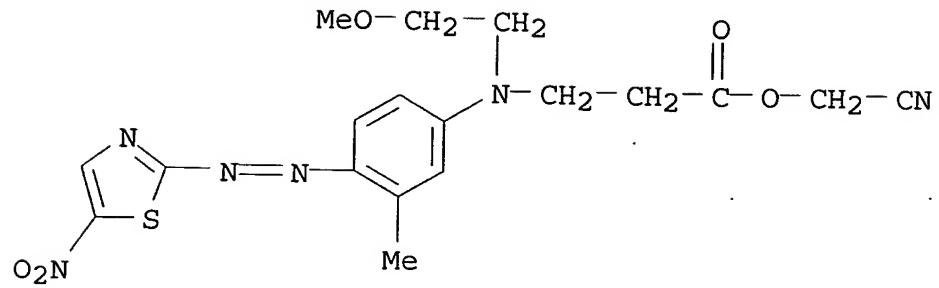
RN 95128-33-9 CAOLD
CN .beta.-Alanine, N-[p-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-(2-cyanoethyl)-, ester with glycolonitrile (7CI) (CA INDEX NAME)



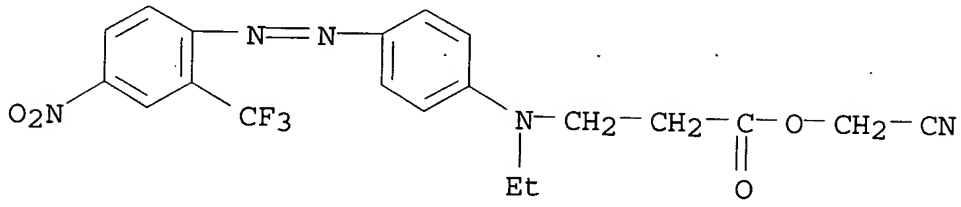
RN 95318-56-2 CAOLD
CN .beta.-Alanine, N-[p-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-ethyl-, ester with glycolonitrile (7CI) (CA INDEX NAME)



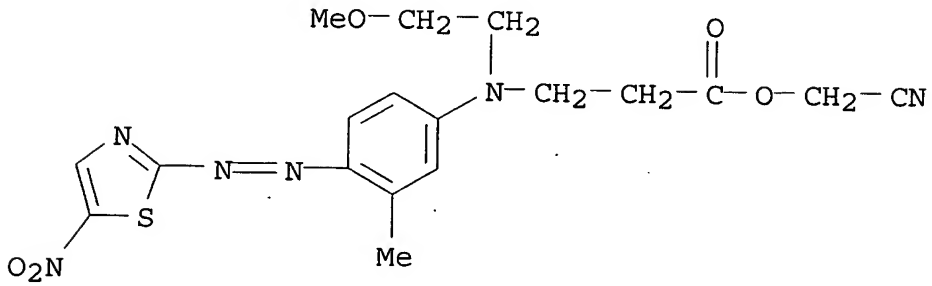
RN 95365-62-1 CAOLD
CN .beta.-Alanine, N-(2-methoxyethyl)-N-[4-[(5-nitro-2-thiazolyl)azo]-m-tolyl]-, ester with glycolonitrile (7CI) (CA INDEX NAME)



L5 ANSWER 8 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA60:9394f CAOLD
TI dyes (thiadiazole mono- and disazo)
PA Badische Anilin- & Soda-Fabrik A.-G.
DT Patent
IT **1959-20-2** 94328-84-4 94961-87-2 **95365-62-1** 100086-78-0
IT **1959-20-2** **95365-62-1**
RN 1959-20-2 CAOLD
CN .beta.-Alanine, N-ethyl-N-[p-[(.alpha.,.alpha.,.alpha.-trifluoro-4-nitro-o-tolyl)azo]phenyl]-, ester with glycolonitrile (7CI, 8CI) (CA INDEX NAME)



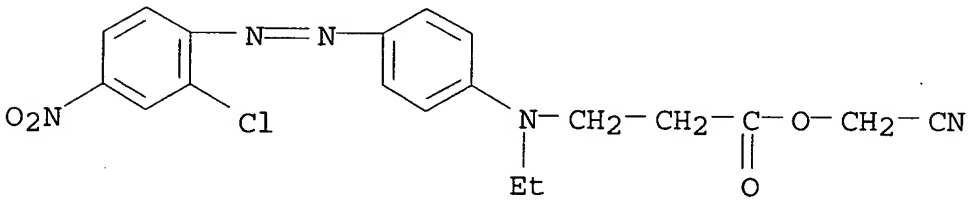
RN 95365-62-1 CAOLD
CN .beta.-Alanine, N-(2-methoxyethyl)-N-[4-[(5-nitro-2-thiazolyl)azo]-m-tolyl]-, ester with glycolonitrile (7CI) (CA INDEX NAME)



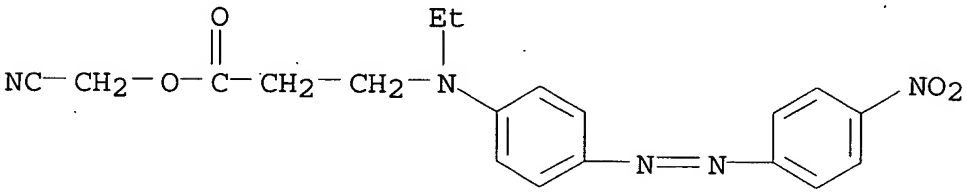
L5 ANSWER 9 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA60:9394d CAOLD
TI monoazo dyes contg. ester groups
AU Fishwick, Brian R.; Wardleworth, J.
DT Patent

PATENT NO.	KIND	DATE
GB 909843		

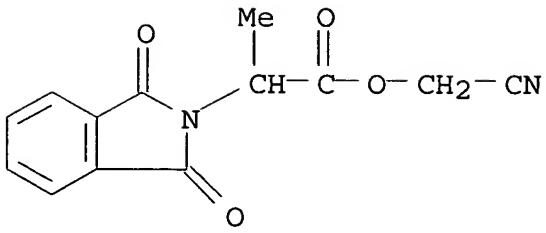
IT **95318-56-2** 100001-77-2 103480-69-9 **72595-16-5**
IT **95318-56-2** **72595-16-5**
RN 95318-56-2 CAOLD
CN .beta.-Alanine, N-[p-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-ethyl-, ester with glycolonitrile (7CI) (CA INDEX NAME)



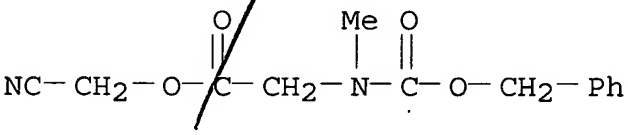
RN 72595-16-5 CAOLD
CN .beta.-Alanine, N-ethyl-N-[4-[(4-nitrophenyl)azo]phenyl]-, cyanomethyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 10 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA59:15382c CAOLD
TI racemization during peptide synthesis - (III) partial racemization during prepn. of activated cyanomethyl esters of N-protected amino acids
AU Liberek, Bogdan; Nowicka, A.; Grzonka, Z.
IT 3338-36-1 7663-85-6 92192-73-9 **95708-10-4** 96983-26-5 97724-42-0 98638-19-8
IT **95708-10-4**
RN 95708-10-4 CAOLD
CN 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile (7CI) (CA INDEX NAME)



L5 ANSWER 11 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA54:18389b CAOLD
TI .alpha.-amino acid 2-hydroxycyclohexylamides
AU Class, E.; Prijs, B.; Erlenmeyer, H.
IT 3338-35-0 3338-36-1 92870-78-5 98552-55-7 98552-56-8
99993-91-6 100391-80-8 100708-08-5 **100796-14-3** 101275-62-1
101591-06-4 101591-07-5 101724-52-1 102165-79-7 102886-72-6
109046-05-1 110051-62-2 112950-97-7 120088-49-5 132962-06-2
IT **100796-14-3**
RN 100796-14-3 CAOLD
CN Sarcosine, N-carboxy-, N-benzyl cyanomethyl ester (6CI) (CA INDEX NAME)



L5 ANSWER 12 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA54:13013g CAOLD
TI synthesis of oligopeptides from L-glutamic acid and glycine
AU Helferich, Burckhardt; Schellenberg, P.; Ullrich, J.
IT 1165-77-1 3369-03-7 **3589-47-7** 7412-78-4 13018-28-5
16677-43-3 16948-20-2 65201-55-0 98561-55-8 101575-62-6
102160-80-5 103156-77-0 109453-97-6 112552-47-3 114699-43-3
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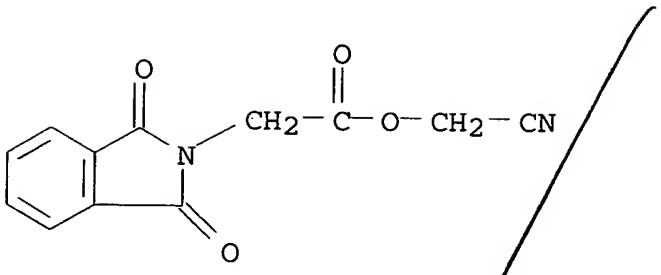
122411-83-0
IT **3589-47-7**
RN 3589-47-7 CAOLD
CN 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile (7CI, 8CI) (CA INDEX NAME)



L5 ANSWER 13 OF 13 CAOLD COPYRIGHT 2003 ACS on STN
AN CA53:21699g CAOLD
TI amides
AU Schwyzer, Robert; Iselin, B. M.; Feurer, M.
PA CIBA Ltd.
DT Patent

PATENT NO.	KIND	DATE
PI CH 324532		
DE 1060380		
US 3035041		1962

IT 842-98-8 1145-32-0 2566-20-3 2642-32-2 2899-56-1
3106-11-4 3392-91-4 **3589-47-7** 4172-36-5 4703-45-1
4815-66-1 4816-94-8 4905-17-3 5540-05-6 6864-14-8
27781-44-8 31122-64-2 77109-85-4 99856-11-8 100253-62-1
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101352-36-7 101869-29-8 102167-39-5 102238-10-8 102374-04-9
102598-55-0 103032-40-2 106742-77-2 **108923-33-7**
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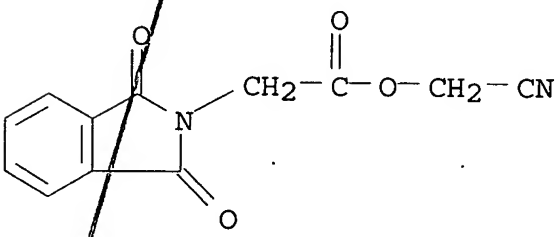
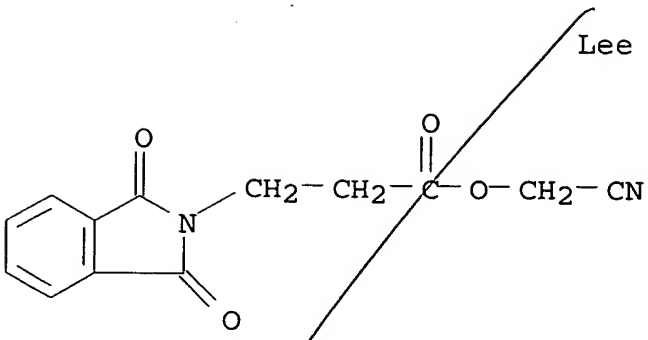
111240-15-4 122339-00-8 122389-68-8 122701-27-3 122702-31-2
133102-04-2

IT **3589-47-7 108923-33-7**
RN 3589-47-7 CAOLD
CN 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile (7CI, 8CI) (CA INDEX NAME)



RN 108923-33-7 CAOLD
CN 2-Isoindolinepropionic acid, 1,3-dioxo-, cyanomethyl ester (6CI) (CA INDEX NAME)



=> file zcaplus
FILE 'ZCAPLUS' ENTERED AT 11:36:43 ON 29 AUG 2003
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=> d l23 1 ibib abs hitstr hitind

L23 ANSWER 1 OF 1 ZCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1999:430649 ZCAPLUS
DOCUMENT NUMBER: 131:136791
TITLE: Positive-working **photoresist** composition for far ultraviolet ray exposure
INVENTOR(S): Sato, Kenichiro; Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 101 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11184090	A2	19990709	JP 1997-361297	19971226
JP 11184091	A2	19990709	JP 1998-6864	19980116

PRIORITY APPLN. INFO.: JP 1997-279071 19971013
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

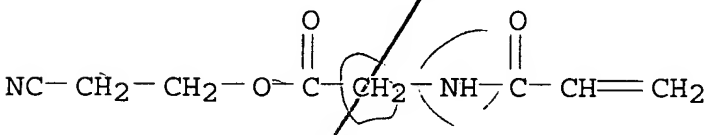
AB In the title **photoresist** compn. contains a resin which is decompd. by the action of acid to increase the soly. in alkali and a compd. generating an acid upon activating ray or radiation irradn., the resin includes a polymer having a repeating unit I or II [R1-16 = H, (substituted) alkyl, halo, CN, CO2H, CO2R31 (R31 = alkyl or cyclic alkyl), acid-decomposable group, CO2AR18 , COX2AR18,

.gtoreq.1 of R1-8 or R9-16 is an acid-decomposable group and .gtoreq.1 of R1-8 or R9-16 is COX2AR18; m/n = 1/9-9/1; m + n, p + q = 10- 100, p, q = 0-100; X2 = S, NH, NHSO2, NHSO2NH; R18 = H, alkyl, cyclic alkyl, CO2H, CN, OH, (substituted) alkoxy, CONHR30, CONHSO2R30, CO2R35; R30 = (substituted) alkyl, (substituted) cyclic alkyl; R35 = (substituted) alkyl, (substituted) cycloalkyl, III, IV; R19-26 = H, (substituted) alkyl; A = single bond, (substituted) alkylene, ether, thioether, carbonyl, ester, amide, sulfonamide, urethane, urea, group composed of .gtoreq.2 selected from these groups; a, b = 1 or 2]. In the formulas I and II, R1-16 may be H, (substituted) alkyl, halo, CN, CO2H, CO2R31, COX1AR18, acid-decomposable group or CO2CR32R33R34 [.gtoreq.1 of R1-8 or R9-16 is an acid-decomposable group and .gtoreq.1 of R1-8 or R9-16 is CO2CR32R33R34; X1 = O, S, NH, NHSO2, NHSO2NH; R32, R33 = H, halo, (substituted) alkyl; R34 = H, CO2H, CO2R35, CN, CONHR35, CONHSO2R35, alkyl which may have .gtoreq.1 group selected from OH, alkoxy, CO2H, CO2R35, CN, CONHR35, and CONHSO2R35]. The compn. shows high sensitivity toward ArF excimer lasers and applicability to the std. developing soln. and provides a high resoln. pattern with good dry etch resistance, profile, adhesion to substrate, and anti-cracking properties.

IT **233670-20-7D**, reaction products with norbornenedicarboxylic anhydride and dicyclopentadiene, polymers
(pos. **photoresist** compn. contg. acid-decomposable polymer and acid generator)

RN 233670-20-7 ZCAPLUS

CN Glycine, N-(1-oxo-2-propenyl)-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



IC ICM G03F007-039
ICS C08L045-00; H01L021-027; C09D145-00

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST pos **photoresist** acid decomposable polymer; acid generator **photoresist**

IT Positive **photoresists**
(pos. **photoresist** compn. contg. acid-decomposable polymer and acid generator)

IT 233670-19-4DP, esters
(pos. **photoresist** compn. contg. acid-decomposable polymer and acid generator)

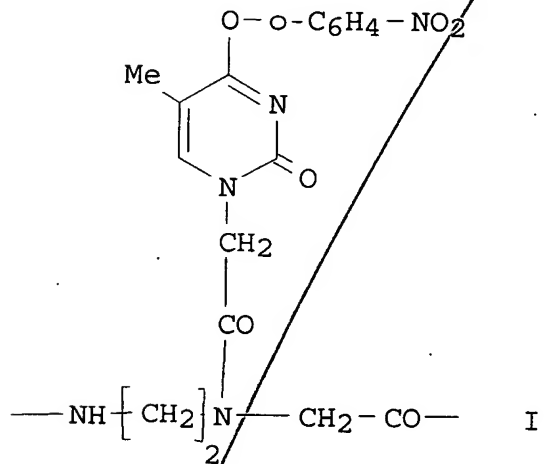
IT 56-40-6D, Glycine, esters with norbornenedicarboxylic anhydride and cyclopentadiene polymers, uses 75-65-0D, tert-Butanol, esters with norbornenedicarboxylic anhydride and cyclopentadiene polymers 77-73-6D, Dicyclopentadiene, reaction products with

norbornenedicarboxylic anhydride and cyanoethoxycarbonylmethyl acrylamide, polymers 542-92-7D, Cyclopentadiene, reaction products with norbornenedicarboxylic anhydride, polymers, esters with glycine and tert-butanol 826-62-0D, 5-Norbornene-2,3-dicarboxylic anhydride, reaction products with cyclopentadiene, polymers, esters with glycine and tert-butanol 66003-78-9, Triphenylsulfonium triflate **233670-20-7D**, reaction products with norbornenedicarboxylic anhydride and dicyclopentadiene, polymers (pos. **photoresist** compn. contg. acid-decomposable polymer and acid generator)

=> d l6 1-58 cbib abs hitstr hitrn

L6 ANSWER 1 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
2003:91260 Document No. 139:22480 Synthesis of labelled PNA oligomers by a post-synthetic modification approach. de la Torre, Beatriz G.; Eritja, Ramon (C.S.I.C., Institut de Biologia Molecular de Barcelona, Barcelona, E-08034, Spain). Bioorganic & Medicinal Chemistry Letters, 13(3), 391-393 (English) 2003. CODEN: BMCLE8. ISSN: 0960-894X. Publisher: Elsevier Science Ltd..

GI



I

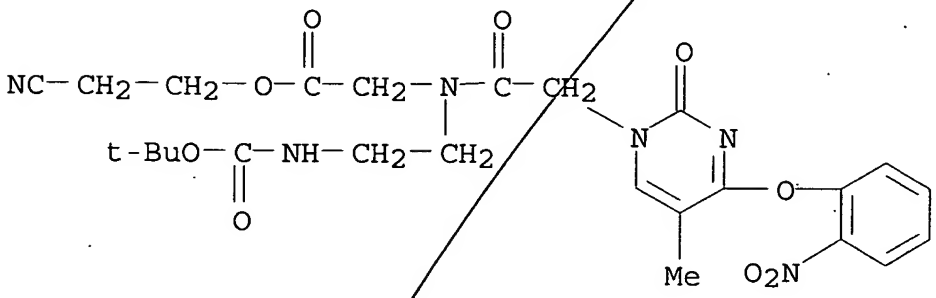
AB The prepn. of t-butoxycarbonyl (Boc)-protected O4-(o-nitrophenyl) thymine peptide nucleic acid (PNA) monomer (I) is described. I was incorporated into PNA oligomer sequences. The post-synthetic modification of the oligomers to yield fluorescently-labeled PNA oligomers was studied before and after the removal of the protecting groups. In both cases, the desired fluorescently-labeled PNA oligomer was obtained in good yields.

IT **534568-60-0P**

(prepn. and use of PNA monomer in solid-phase synthesis and purifn. of labeled PNAs)

RN 534568-60-0 ZCAPLUS

CN Glycine, N-[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N-[[5-methyl-4-(2-nitrophenoxy)-2-oxo-1(2H)-pyrimidinyl]acetyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



IT **534568-60-0P**

(prepn. and use of PNA monomer in solid-phase synthesis and purifn. of labeled PNAs)

L6 ANSWER 2 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

2002:826467 Document No. 138:304104 Rhodium(II)-mediated reactions of thiobenzoylketene S,N-acetals with .alpha.-diazo carbonyl compounds: synthesis of 2-substituted 3-alkylamino-5-phenylthiophenes. Song, Hyun Min; Kim, Kyongtae (School of Chemistry and Molecular Engineering, Seoul National University, Seoul, 151-742, S. Korea). Journal of the Chemical Society, Perkin Transactions 1 (21), 2414-2417 (English) 2002. CODEN: JCSPCE. ISSN: 1472-7781. OTHER SOURCES: CASREACT 138:304104. Publisher: Royal Society of Chemistry.

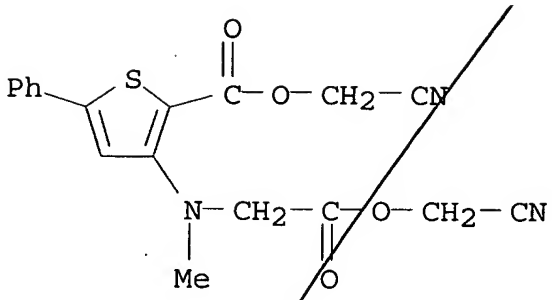
AB Treatment of 3-methylamino-3-methylsulfanyl-1-phenylpropenethione (I) with excess (2.5 equiv) .alpha.-diazo carbonyl compds. such as .alpha.-diazo ketones and .alpha.-diazo esters in the presence of a catalytic amt. of Rh(II) acetate in CH2Cl2 at room temp. gave 2-acyl- or 2-aroyl-3-methylamino-5-phenylthiophenes and alkyl 3-methylamino-5-phenylthiophene-2-carboxylates, resp., as major products along with 1-phenyl-2-methylsulfanylethanones. The formation of the major products indicates that the carbenes or carbenoids generated interact initially with the thione sulfur of I.

IT **508220-93-7P**

(2-acyl-3-(methylamino)-5-phenylthiophenes and 3-(methylamino)-5-phenyl-2-thiophenecarboxylates via rhodium acetate catalyzed heterocyclization of thiobenzoylketene S,N-acetals with diazo carbonyl compds.)

RN 508220-93-7 ZCAPLUS

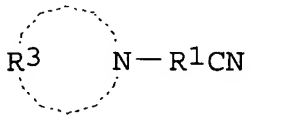
CN 2-Thiophenecarboxylic acid, 3-[[2-(cyanomethoxy)-2-oxoethyl]methylamino]-5-phenyl-, cyanomethyl ester (9CI) (CA INDEX NAME)



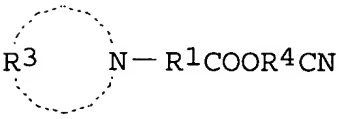
IT **508220-93-7P**
(2-acyl-3-(methylamino)-5-phenylthiophenes and 3-(methylamino)-5-phenyl-2-thiophenecarboxylates via rhodium acetate catalyzed heterocyclization of thiobenzoylketene S,N-acetals with diazo carbonyl compds.)

L6 ANSWER 3 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
2002:638186 Document No. 137:192762 Amine compounds, resist compositions and patterning process. Hatakeyama, Jun; Kobayashi, Tomohiro; Watanabe, Takeru (Shin-Etsu Chemical Co., Ltd., Japan). U.S. Pat. Appl. Publ. US 2002115018 A1 20020822, 40 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-3288 20011206. PRIORITY: JP 2000-373316 20001207.

GI



I

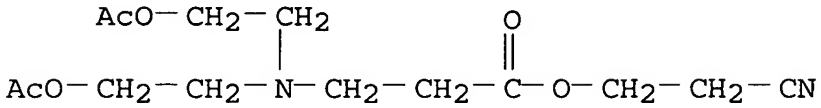


II

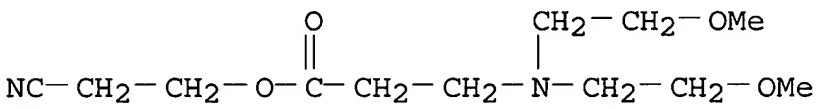
AB Amine compds. having a cyano group are useful in resist compns. for preventing a resist film from thinning and also for enhancing the resoln. and focus margin of resist. The invention amine compds. have general formulas: (R2)b-N-(R1-CN)a; I; (R2)b-N-(R1C(=O)OR4-CN)a; II (R1,4 = C1-4 alkylene; R2 = C1-20 cycloc alkyl which may contain a hydroxy group, ether, carbonyl, ester, lactone ring, carbonate, cyano group; R3 = C2-20 alkylene which may contain hydroxy, ether, thioether, carbonyl, ester, thioester group, carbonate; a = 1-3; a+b = 3).

IT **449165-74-6P 449165-79-1P**
(amine compds. and photoresist compns. for patterning process)

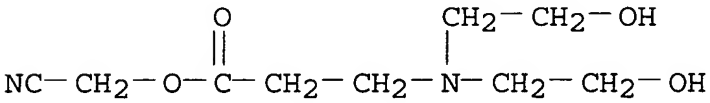
RN 449165-74-6 ZCAPLUS
CN .beta.-Alanine, N,N-bis[2-(acetyloxy)ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



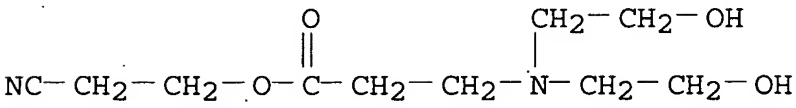
RN 449165-79-1 ZCAPLUS
CN .beta.-Alanine, N,N-bis(2-methoxyethyl)-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



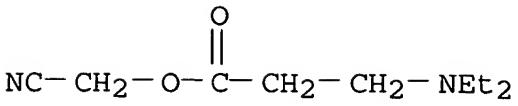
IT **449165-61-1P 449165-71-3P**
(amine compds. and photoresist compns. for patterning process)
RN 449165-61-1 ZCAPLUS
CN .beta.-Alanine, N,N-bis(2-hydroxyethyl)-, cyanomethyl ester (9CI) (CA INDEX NAME)



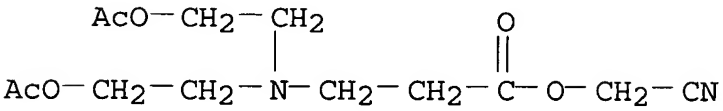
RN 449165-71-3 ZCAPLUS
CN .beta.-Alanine, N,N-bis(2-hydroxyethyl)-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



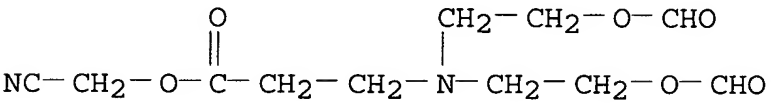
IT **449165-60-0P 449165-62-2P 449165-63-3P**
449165-66-6P 449165-67-7P 449165-70-2P
449165-77-9P 449165-81-5P 449165-83-7P
449165-85-9P 449165-86-0P 449165-87-1P
449165-88-2P 449165-89-3P
(amine compds. and photoresist compns. for patterning process)
RN 449165-60-0 ZCAPLUS
CN .beta.-Alanine, N,N-diethyl-, cyanomethyl ester (9CI) (CA INDEX NAME)



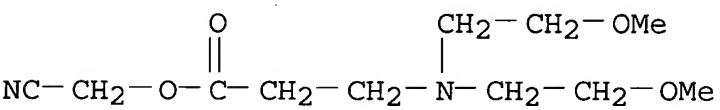
RN 449165-62-2 ZCAPLUS
CN .beta.-Alanine, N,N-bis[2-(acetyloxy)ethyl]-, cyanomethyl ester (9CI) (CA INDEX NAME)



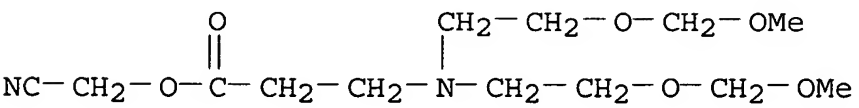
RN 449165-63-3 ZCAPLUS
CN .beta.-Alanine, N,N-bis[2-(formyloxy)ethyl]-, cyanomethyl ester (9CI) (CA INDEX NAME)



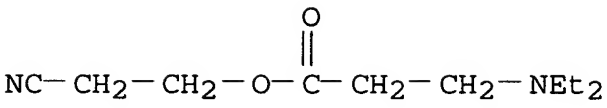
RN 449165-66-6 ZCAPLUS
CN .beta.-Alanine, N,N-bis(2-methoxyethyl)-, cyanomethyl ester (9CI) (CA INDEX NAME)



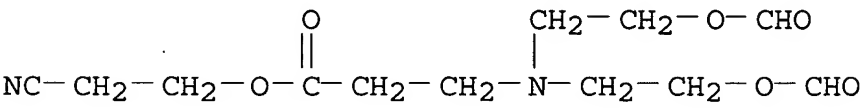
RN 449165-67-7 ZCAPLUS
CN .beta.-Alanine, N,N-bis[2-(methoxymethoxy)ethyl]-, cyanomethyl ester (9CI) (CA INDEX NAME)



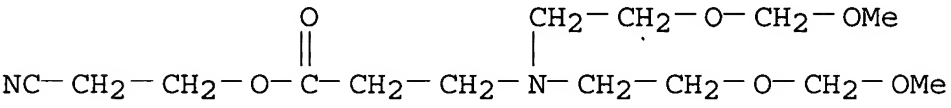
RN 449165-70-2 ZCAPLUS
CN .beta.-Alanine, N,N-diethyl-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



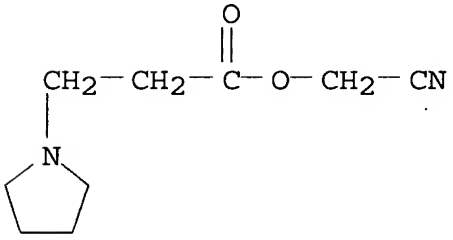
RN 449165-77-9 ZCAPLUS
CN .beta.-Alanine, N,N-bis[2-(formyloxy)ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



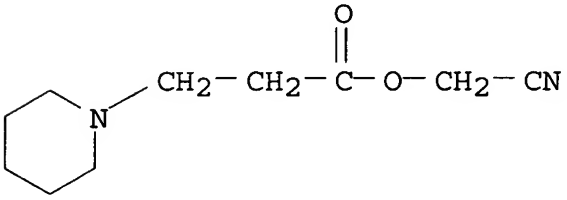
RN 449165-81-5 ZCAPLUS
CN .beta.-Alanine, N,N-bis[2-(methoxymethoxy)ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



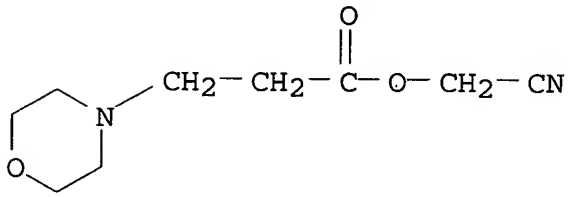
RN 449165-83-7 ZCAPLUS
CN 1-Pyrrolidinepropanoic acid, cyanomethyl ester (9CI) (CA INDEX NAME)



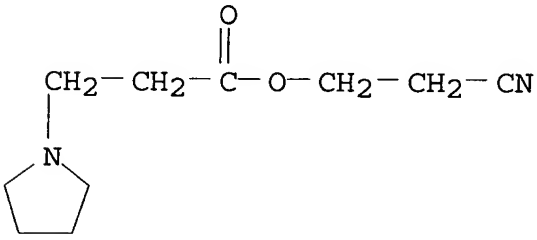
RN 449165-85-9 ZCAPLUS
CN 1-Piperidinepropanoic acid, cyanomethyl ester (9CI) (CA INDEX NAME)



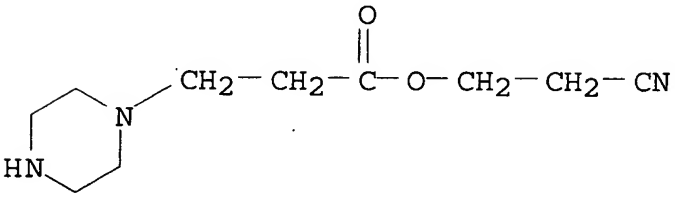
RN 449165-86-0 ZCAPLUS
CN 4-Morpholinepropanoic acid, cyanomethyl ester (9CI) (CA INDEX NAME)



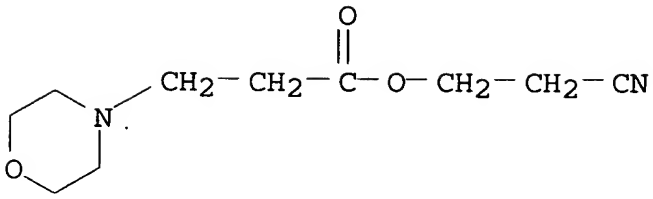
RN 449165-87-1 ZCAPLUS
CN 1-Pyrrolidinepropanoic acid, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



RN 449165-88-2 ZCAPLUS
CN 1-Piperazinepropanoic acid, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

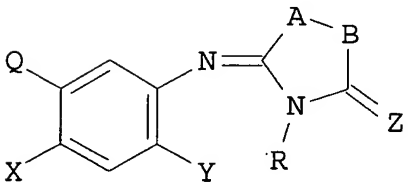


RN 449165-89-3 ZCAPLUS
CN 4-Morpholinepropanoic acid, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



IT **449165-74-6P 449165-79-1P**
(amine compds. and photoresist compns. for patterning process)
IT **449165-61-1P 449165-71-3P**
(amine compds. and photoresist compns. for patterning process)
IT **449165-60-0P 449165-62-2P 449165-63-3P**
449165-66-6P 449165-67-7P 449165-70-2P
449165-77-9P 449165-81-5P 449165-83-7P
449165-85-9P 449165-86-0P 449165-87-1P
449165-88-2P 449165-89-3P
(amine compds. and photoresist compns. for patterning process)

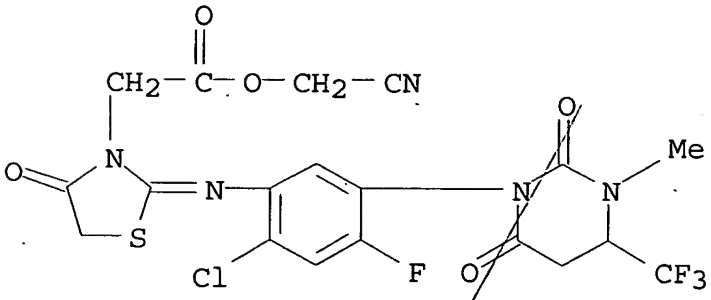
L6 ANSWER 4 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
2001:757844 Document No. 135:303879 Preparation of 1-(3-heterocyclylphenyl) isothiourea, -isourea, -guanidine and -amidine herbicidal agents. Karp, Gary Mitchell (American Cyanamid Co., USA). U.S. US 6303783 B1 20011016, 103 pp. (English). CODEN: USXXAM. APPLICATION: US 1999-368340 19990804. PRIORITY: US 1998-PV96448 19980813.
GI



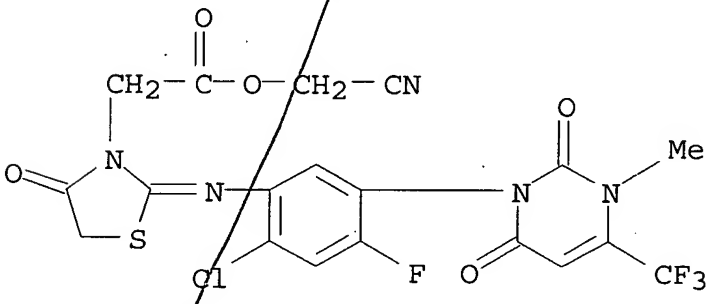
I

AB The title compds. 1-(3-heterocyclylphenyl) isothiourea, -isourea, -guanidine, and -amidine I [X, Y = H, halo, NO2, cyano, alkyl, haloalkyl, S(O)mR1; R = H, alkyl, cycloalkyl, alkenyl, heterocyclyl, etc.; Z = O, S; Q = dioxodihydropyrimidinyl, oxothioxodihydropyrimidinyl], herbicides, were prepd. E.g. 3-{4-chloro-2-fluoro-5-[3-methyl-4-oxo-2-thiazolidinylideneamino]phenyl}-1-methyl-6-(trifluoromethyl)-2,4(1H,3H)-pyrimidinedione was prepd. Postemergence herbicidal activity of I was detd.
IT **260977-96-6P**
(prepn. of 1-(3-heterocyclylphenyl) isothiourea, -isourea, -guanidine and -amidine herbicidal agents)
RN 260977-96-6 ZCAPLUS

CN 3-Thiazolidineacetic acid, 2-[[2-chloro-4-fluoro-5-[tetrahydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenyl]imino]-4-oxo-, cyanomethyl ester (9CI) (CA INDEX NAME)



IT **366447-41-8P**
(prepn. of 1-(3-heterocyclylphenyl) isothiourea, -isourea, -guanidine and -amidine herbicidal agents)
RN 366447-41-8 ZCAPLUS
CN 3-Thiazolidineacetic acid, 2-[[2-chloro-5-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-4-fluorophenyl]imino]-4-oxo-, cyanomethyl ester (9CI) (CA INDEX NAME)



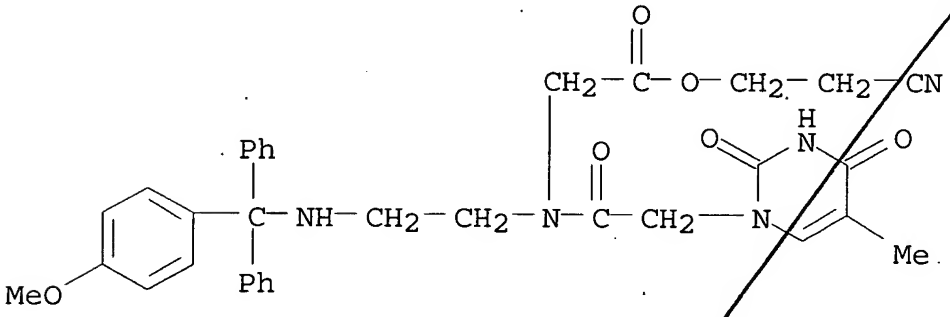
IT **260977-96-6P**
(prepn. of 1-(3-heterocyclylphenyl) isothiourea, -isourea, -guanidine and -amidine herbicidal agents)
IT **366447-41-8P**
(prepn. of 1-(3-heterocyclylphenyl) isothiourea, -isourea, -guanidine and -amidine herbicidal agents)

L6 ANSWER 5 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
2001:342363 Document No. 135:122729 Synthesis of peptide nucleic acid oligomers carrying 5-methylcytosine derivatives by post synthetic substitution. Ferrer, Elisenda; Eritja, Ramon (European Molecular Biology Laboratory, Heidelberg, D-69117, Germany). Letters in Peptide Science, Volume Date 2000, 7(4), 195-206 (English) 2001. CODEN: LPSCEM. ISSN: 0929-5666. OTHER SOURCES: CASREACT 135:122729. Publisher: Kluwer Academic Publishers.
AB The prepn. of the thymine peptide nucleic acid (PNA) monomer

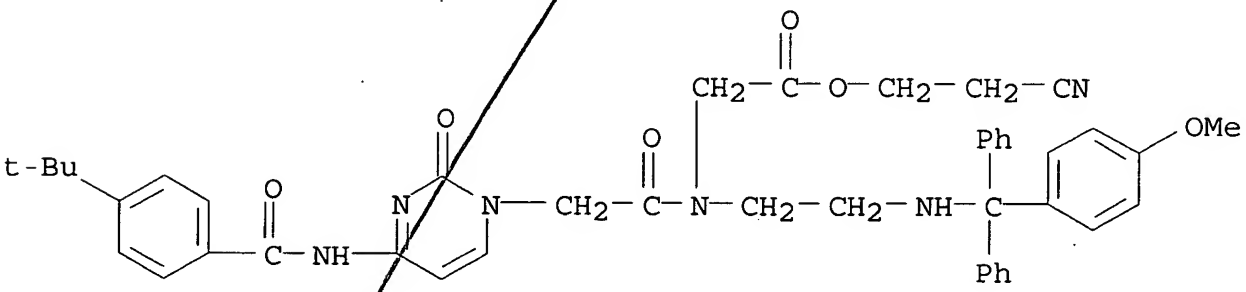
carrying a 2-nitrophenyl group in position 4 is described. This monomer is incorporated into PNA oligomers and reacted with amines to yield PNA oligomers carrying 5-methylcytosine derivs. During the deprotection-modification step two side reactions were detected: degrdn. of PNA oligomer from the N-terminal residue and modification of N4-tert-butylbenzoyl cytosine residue. Protection of the N-terminal position and the use of N4-acetyl group for the protection of cytosine eliminate these side reactions.

IT **244764-42-9 244764-45-2 244764-46-3 244764-47-4**
(synthesis of peptide nucleic acid oligomers carrying 5-methylcytosine derivs.)

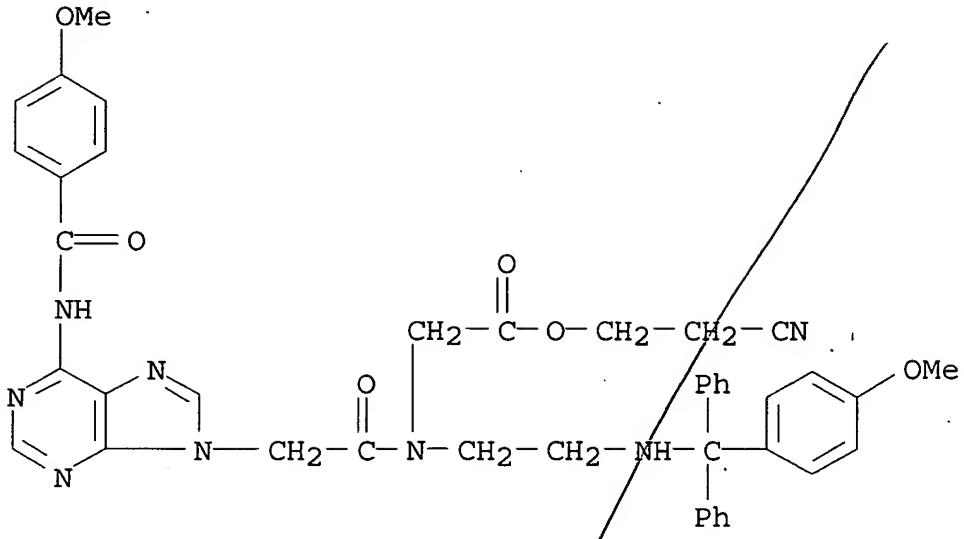
RN 244764-42-9 ZCAPLUS
CN Glycine, N-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



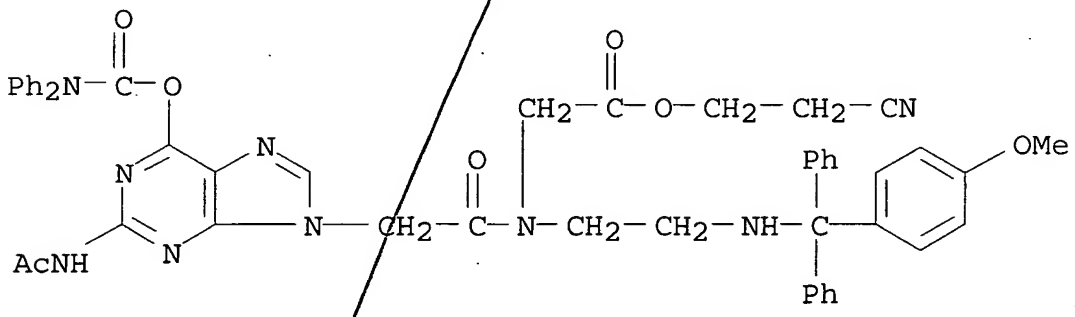
RN 244764-45-2 ZCAPLUS
CN Glycine, N-[[4-[[4-(1,1-dimethylethyl)benzoyl]amino]-2-oxo-1(2H)-pyrimidinyl]acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



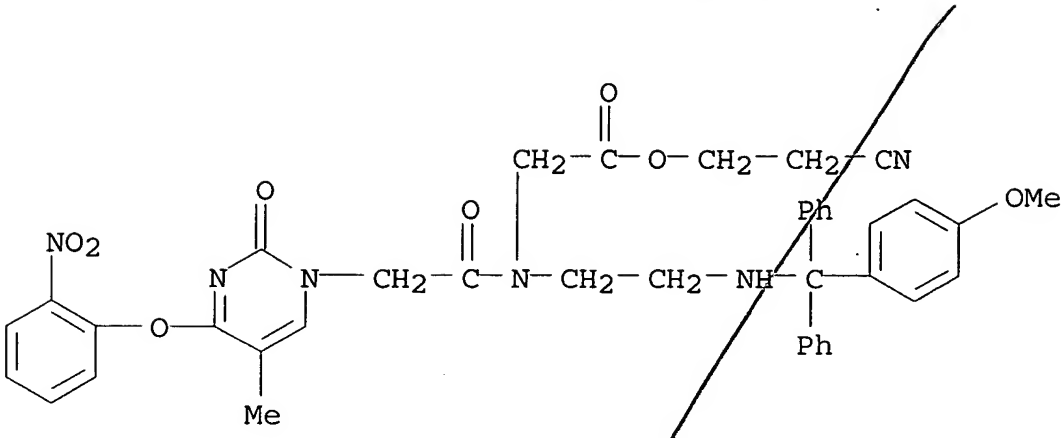
RN 244764-46-3 ZCAPLUS
CN Glycine, N-[[6-[(4-methoxybenzoyl)amino]-9H-purin-9-yl]acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



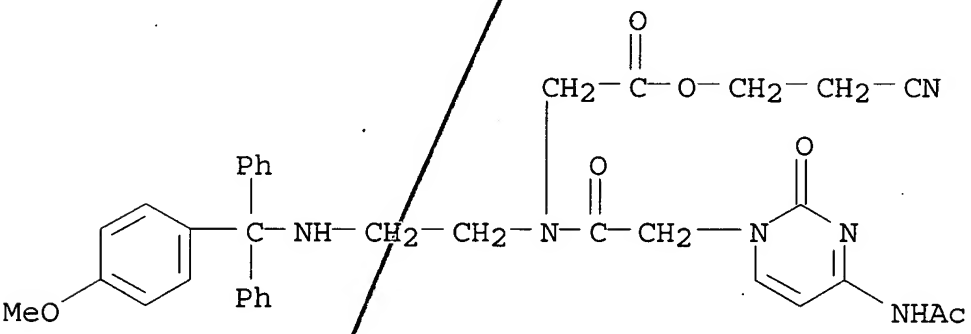
RN 244764-47-4 ZCAPLUS
CN Glycine, N-[[2-(acetylamino)-6-[[(diphenylamino)carbonyl]oxy]-9H-purin-9-yl]acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



IT **350608-25-2P**
(synthesis of peptide nucleic acid oligomers carrying 5-methylcytosine derivs.)
RN 350608-25-2 ZCAPLUS
CN Glycine, N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-N-[[5-methyl-4-(2-nitrophenoxy)-2-oxo-1(2H)-pyrimidinyl]acetyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



IT **350608-30-9P**
(synthesis of peptide nucleic acid oligomers carrying 5-methylcytosine derivs.)
RN 350608-30-9 ZCAPLUS
CN Glycine, N-[[4-(acetylamino)-2-oxo-1(2H)-pyrimidinyl]acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



IT **244764-42-9 244764-45-2 244764-46-3**
244764-47-4
(synthesis of peptide nucleic acid oligomers carrying 5-methylcytosine derivs.)
IT **350608-25-2P**
(synthesis of peptide nucleic acid oligomers carrying 5-methylcytosine derivs.)
IT **350608-30-9P**
(synthesis of peptide nucleic acid oligomers carrying 5-methylcytosine derivs.)

L6 ANSWER 6 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
2000:175534 Document No. 132:222542 Preparation of 1-(3-heterocyclylphenyl)isothioureas, -isoureas, -guanidines and -amidines as herbicides. Karp, Gary Mitchell (American Cyanamid Company, USA). Eur. Pat. Appl. EP 985670 A1 20000315, 303 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI,

LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-306382 19990812. PRIORITY: US 1998-133872 19980813.

GI

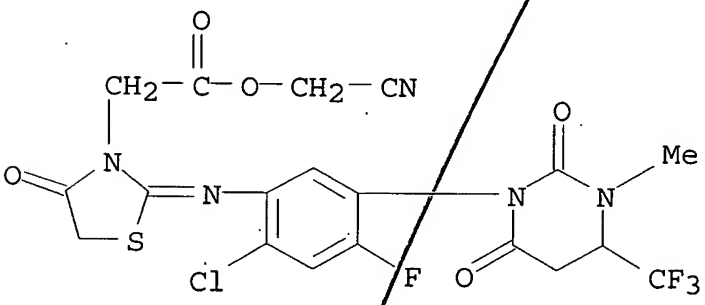
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. [I; X, Y = H, halo, NO2, etc.; R = H, alkyl, cycloalkyl, etc.; Z = O, S; A = O, S, SO, SO2, etc.; B = CR37R38(CR39R40), C(:T), C(:CR41R42); (wherein R37-R40 = H, halo, alkyl, etc.; T = O, S, NH, etc.; R41, R42 = H, alkyl, haloalkyl, etc.); Q = II-IV, etc. (wherein D, D1 = O, S; E = H, halo, alkoxy, etc.; R43, R44 = H, halo, alkyl, etc.; R45, R46 = H, halo, alkyl, etc.)], useful for the control of undesirable plant species, were prepd. E.g., a multi-step synthesis of the title compd. V was given. Biol. data for compds. I were presented.

IT **260977-96-6P**
(prepn. of 1-(3-heterocyclylphenyl)isothioureas, -isoureas, -guanidines and -amidines as herbicides)

RN 260977-96-6 ZCAPLUS

CN 3-Thiazolidineacetic acid, 2-[[2-chloro-4-fluoro-5-[tetrahydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenyl]imino]-4-oxo-, cyanomethyl ester (9CI) (CA INDEX NAME)



IT **260977-96-6P**
(prepn. of 1-(3-heterocyclylphenyl)isothioureas, -isoureas, -guanidines and -amidines as herbicides)

L6 ANSWER 7 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

2000:141738 Document No. 133:27746 Synthesis and Hybridization Properties of DNA-PNA Chimeras Carrying 5-Bromouracil and 5-Methylcytosine. Ferrer, E.; Shevchenko, A.; Eritja, R. (European Molecular Biology Laboratory, Heidelberg, D-69117, Germany). Bioorganic & Medicinal Chemistry, 8(2), 291-297 (English) 2000. CODEN: BMECEP. ISSN: 0968-0896. Publisher: Elsevier Science Ltd..

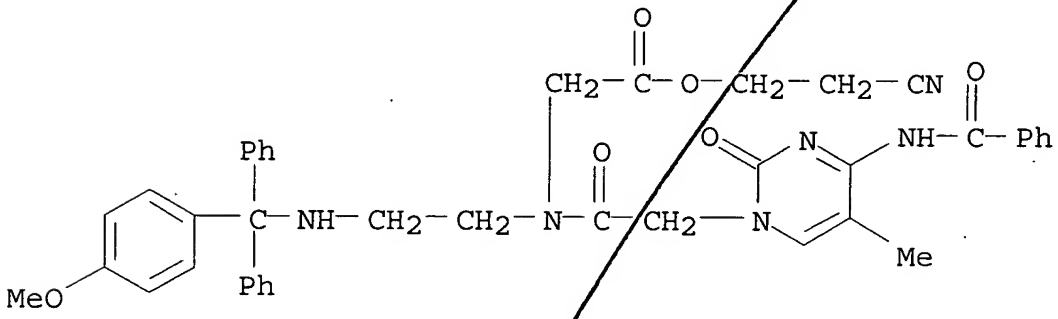
AB The prepn. of 5-bromouracil and 5-methylcytosine peptide nucleic acid (PNA) monomers is described. These PNA monomers were used for

the prepn. of several DNA-PNA chimeras and their hybridization properties are described. The substitution of cytosine by 5-methylcytosine in DNA-PNA chimeras increased duplex stability while substitution of thymine by 5-bromouracil maintained it. Moreover, binding of DNA-PNA chimeras to double-stranded DNA to form triple helixes was studied. In contrast to DNA, the presence of 5-methylcytosine and 5-bromouracil in DNA-PNA chimeras destabilized triple helix.

IT **272788-90-6P**
(synthesis and hybridization properties of DNA-PNA chimeras carrying 5-bromouracil and 5-methylcytosine)

RN 272788-90-6 ZCAPLUS

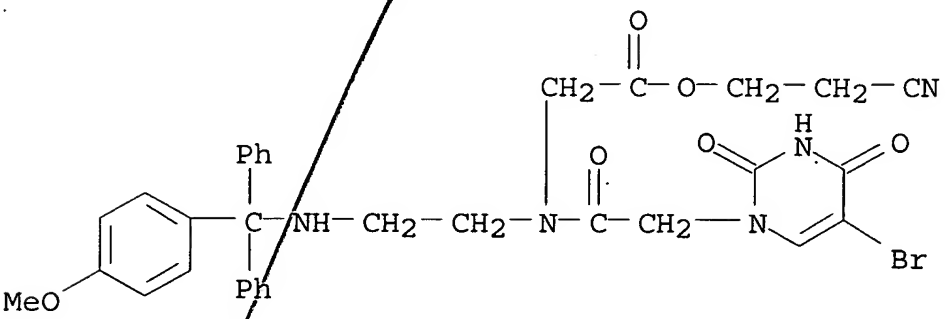
CN Glycine, N-[[4-(benzoylamino)-5-methyl-2-oxo-1(2H)-pyrimidinyl]acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



IT **272788-82-6P**
(synthesis and hybridization properties of DNA-PNA chimeras carrying 5-bromouracil and 5-methylcytosine)

RN 272788-82-6 ZCAPLUS

CN Glycine, N-[(5-bromo-3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



IT **272788-90-6P**
(synthesis and hybridization properties of DNA-PNA chimeras

carrying 5-bromouracil and 5-methylcytosine)

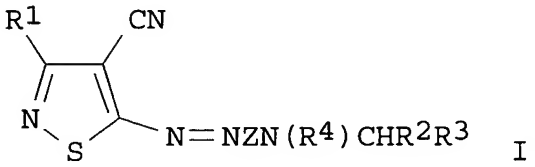
IT **272788-82-6P**

(synthesis and hybridization properties of DNA-PNA chimeras carrying 5-bromouracil and 5-methylcytosine)

L6 ANSWER 8 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

2000:31718 Document No. 132:51147 Ink-jet inks and dyes based on 5-[(substituted aminoaryl)azo]-4-cyanoisothiazole derivatives. Bradbury, Roy; Moscrop, Clive; Meyrick, Barry Huston; Holbrook, Mark (Zeneca Limited, UK). Brit. UK Pat. Appl. GB 2335924 A1 19991006, 31 pp., 31 pp. (English). CODEN: BAXXDU. APPLICATION: GB 1999-5746 19990312. PRIORITY: GB 1998-6810 19980331.

GI



I

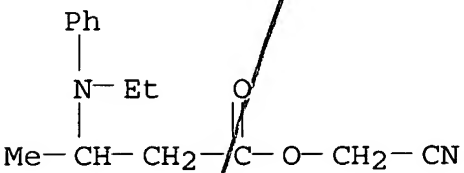
AB The azo dyes I (R1 = H, other substituent; R2, R3 = optionally substituted alkyl, aryl, aralkyl, or R2R3 together may form an optionally substituted ring; R4 = H, optionally substituted alkyl, aryl, aralkyl; Z = optionally substituted arylene) are obtained for use with aq. jet-printing inks also contg. a water-dissipatable polymer. The inks form sharp, fast-drying, wet-fast images and do not clog the printer. In an example, 5-amino-4-cyano-3-methylisothiazole.fwdarw.N-[2-(ethoxycarbonyl)-1-methylethyl]-N-ethylaniline (.lambda.max 532 nm) was prepd. and used in an ink.

IT **252899-46-0P**

(coupling component; prodn. of isothiazole azo dyes for aq. jet printing inks)

RN 252899-46-0 ZCAPLUS

CN Butanoic acid, 3-(ethylphenylamino)-, cyanomethyl ester (9CI) (CA INDEX NAME)



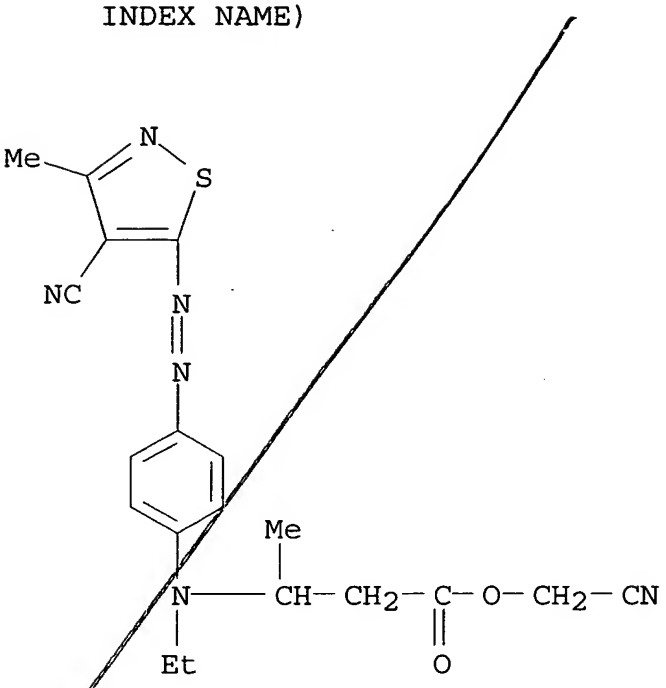
IT **252899-37-9P**

(dye; prodn. of isothiazole azo dyes for aq. jet printing inks)

RN 252899-37-9 ZCAPLUS

CN Butanoic acid, 3-[[4-[(4-cyano-3-methyl-5-isothiazolyl)azo]phenyl]ethylamino]-, cyanomethyl ester (9CI) (CA

INDEX NAME)



IT **252899-46-0P**
(coupling component; prodn. of isothiazole azo dyes for aq. jet printing inks)
IT **252899-37-9P**
(dye; prodn. of isothiazole azo dyes for aq. jet printing inks)

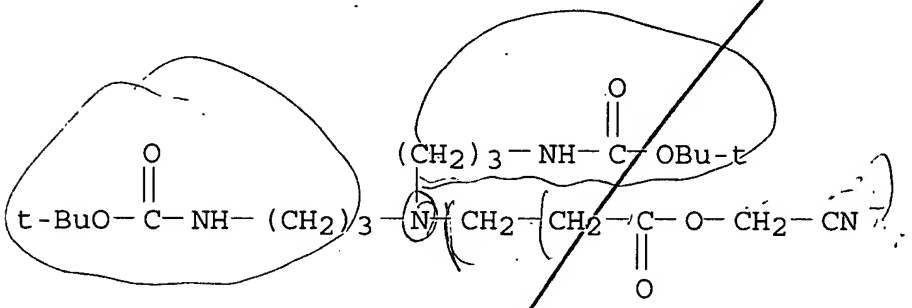
L6 ANSWER 9 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1999:686600 Document No. 131:303431 Separation of active complexes such as polynucleotide-transfecting component complexes. Szoka, Francis C., Jr.; Xu, Yuhong; Wang, Jinkang (The Regents of the University of California, USA). U.S. US 5972600 A 19991026, 16 pp., Cont.-in-part of U.S. Ser. No. 92,200, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1995-482110 19950607. PRIORITY: US 1992-864876 19920403; US 1992-913669 19920714; US 1993-92200 19930714.
AB The invention separates defined, active complexes by a characteristic from defined, active complexes that share a particular physicochem. characteristic such as d., surface charge or particle size are sepd. from complexes formed by the assocn. of a polynucleotide with a transfecting component that increases transfection activity, such as a lipid, cationic lipid, liposome, peptide, cationic peptide, dendrimer or polycation. In a preferred embodiment, polynucleotide-transfecting component complexes are ultracentrifuged to resolve one or more bands corresponding to complexes having a specific polynucleotide-transfecting component interaction. Polynucleotide complexes having a cationic liposome transfecting component resolve into two primary bands corresponding to complexes formed either under excess lipid conditions or under excess polynucleotide conditions. In an alternate embodiment,

polynucleotide-transfecting component complexes are resolved using cross-flow electrophoresis to identify complexes having specific interactions and to sep. them from excess initial components. An example is give for the prepn of spermine-5-carboxyglycin (N'-stearyl-N'-oleyl)amide.

IT **171977-75-6P**
(sepn. of active complexes such as polynucleotide-transfecting component complexes)

RN 171977-75-6 ZCAPLUS

CN 12-Oxa-2,6,10-triazatetradecanoic acid, 6-[3-(cyanomethoxy)-3-oxopropyl]-13,13-dimethyl-11-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

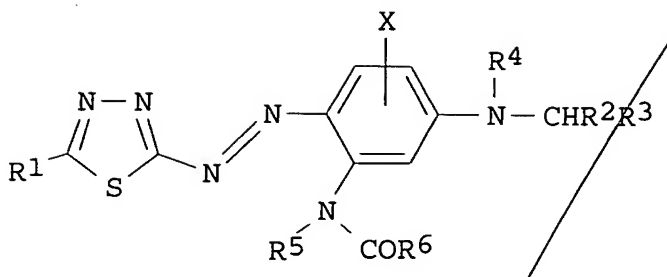


IT **171977-75-6P**
(sepn. of active complexes such as polynucleotide-transfecting component complexes)

L6 ANSWER 10 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1999:640937 Document No. 131:273146 1,3,4-Thiadiazole azo dyes and ink compositions containing them. Shawcross, Andrew Paul; Bradbury, Roy; Meyrick, Barry Huston; Holbrook, Mark (Avecia Ltd., UK). PCT Int. Appl. WO 9950357 A1 19991007, 36 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-GB772 19990315. PRIORITY: GB 1998-6812 19980331; GB 1998-6809 19980331.

GI



I

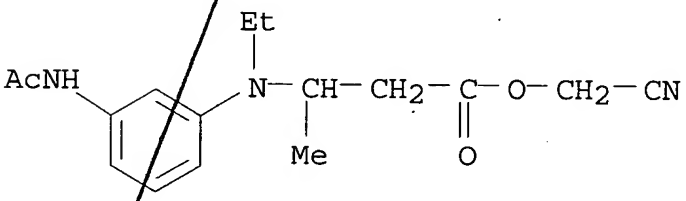
AB Azo dyes (I; R1, X = H or a substituent; R2, R3 = optionally substituted alkyl, aryl, aralkyl, or R2R3 form an optionally substituted ring; R4 = H, optionally substituted alkyl, aryl or aralkyl; R5, R6 = optionally substituted alkyl, aryl, aralkyl) are incorporated into jet printing ink compns. The compns. contain such I, water, and a water-dissipatable polymer such as a polyester; the compns. do not clog jet printing nozzles and provide sharp images. Examples of the synthesis of I (R1 = ethoxycarbonylmethylthio; R2 = R6 = Me; R3 = Et; R4 = Bu; R5 = X = H) as the dye and adipic acid-diethylene glycol-isophthalic acid-neopentyl glycol-5-(sodiosulfo)isophthalic acid copolymer as the polyester are given.

IT **245405-74-7P**

(coupling component; prodn. of thiadiazole azo dyes for jet ink printing compns.)

RN 245405-74-7 ZCAPLUS

CN Butanoic acid, 3-[[3-(acetylamino)phenyl]ethylamino]-, cyanomethyl ester (9CI) (CA INDEX NAME)

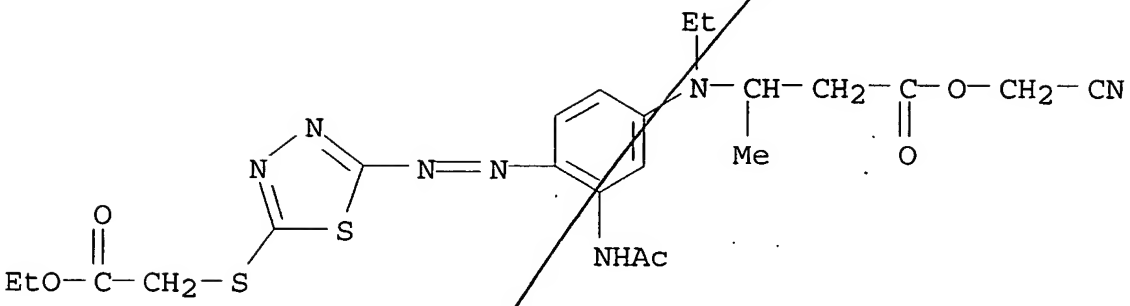


IT **245405-70-3P**

(dye; thiadiazole azo dyes for jet ink printing compns.)

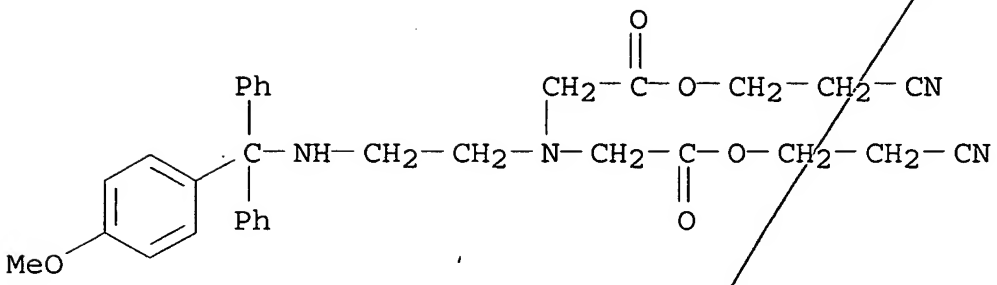
RN 245405-70-3 ZCAPLUS

CN Butanoic acid, 3-[[3-(acetylamino)-4-[[5-[(2-ethoxy-2-oxoethyl)thio]-1,3,4-thiadiazol-2-yl]azo]phenyl]ethylamino]-, cyanomethyl ester (9CI) (CA INDEX NAME)

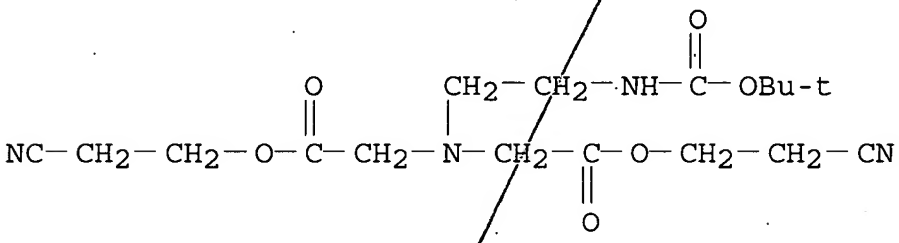


IT **245405-74-7P**
(coupling component; prodn. of thiadiazole azo dyes for jet ink printing compns.)
IT **245405-70-3P**
(dye; thiadiazole azo dyes for jet ink printing compns.)

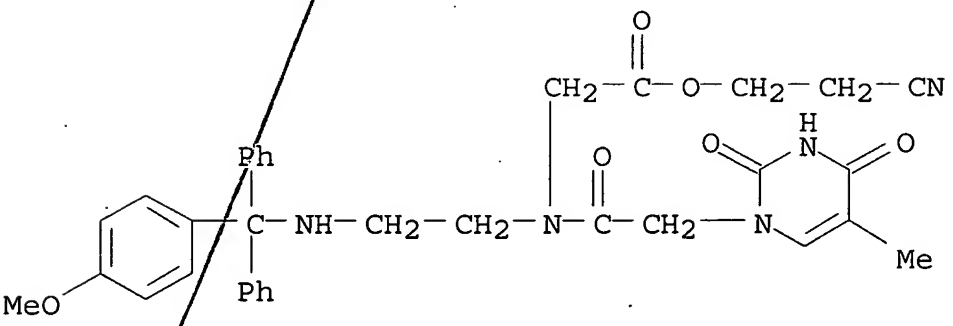
L6 ANSWER 11 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1999:494343 Document No. 131:286800 A convenient route for the preparation of peptide nucleic acid monomers carrying acid-labile groups for the protection of the amino function. Ferrer, Elisenda; Eisenhut, Michael; Eritja, Ramon (European Molecular Biology Laboratory, Heidelberg, D-69117, Germany). Letters in Peptide Science, 6(4), 209-219 (English) 1999. CODEN: LPSCEM. ISSN: 0929-5666. OTHER SOURCES: CASREACT 131:286800. Publisher: Kluwer Academic Publishers.
AB A convenient route for the prepn. of peptide nucleic acid (PNA) monomers is described. Two different base-labile protecting groups (2-cyanoethyl and 4-nitrophenylethyl) are described for the protection of the carboxylic function of the N-(2-aminoethyl)glycine backbone during the assembly of the monomers. These groups are selectively removed yielding the desired PNA monomers in high yields, the 2-cyanoethyl group being faster and cleaner than the 4-nitrophenylethyl group. The use of PNA monomers for the prepn. of DNA-PNA chimeric mols. is also discussed.
IT **244764-59-8P 244764-62-3P**
(prepn. of peptide nucleic acid monomers carrying acid-labile groups for the protection of the amino function)
RN 244764-59-8 ZCAPLUS
CN Glycine, N-[2-(2-cyanoethoxy)-2-oxoethyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



RN 244764-62-3 ZCAPLUS
CN Glycine, N-[2-(2-cyanoethoxy)-2-oxoethyl]-N-[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

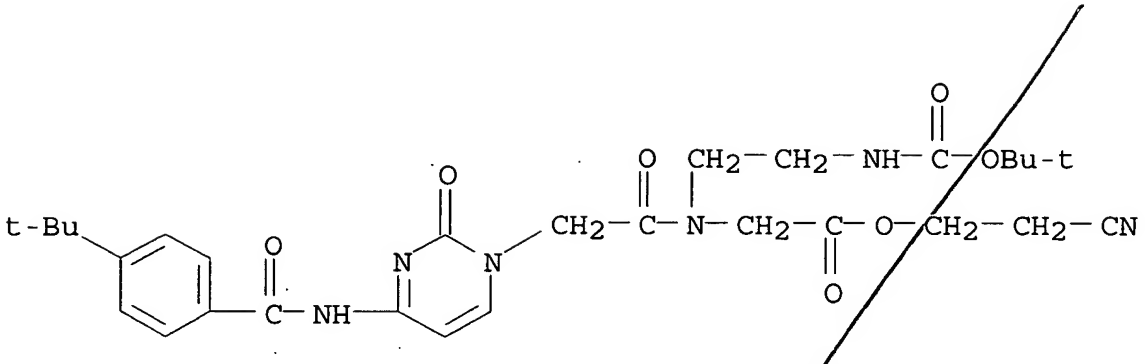


IT **244764-42-9P 244764-44-1P 244764-45-2P**
244764-46-3P 244764-47-4P
(prepn. of peptide nucleic acid monomers carrying acid-labile groups for the protection of the amino function)
RN 244764-42-9 ZCAPLUS
CN Glycine, N-[(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

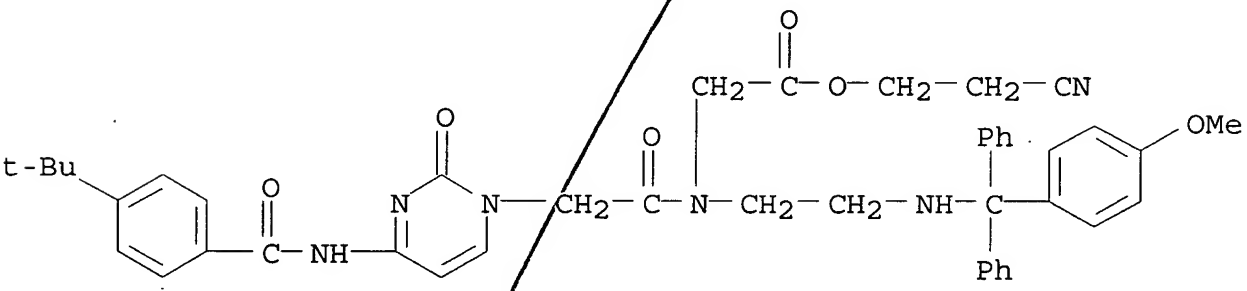


RN 244764-44-1 ZCAPLUS
CN Glycine, N-[2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl]-N-[[4-[[4-(1,1-dimethylethyl)benzoyl]amino]-2-oxo-1(2H)-pyrimidinyl]acetyl]-,

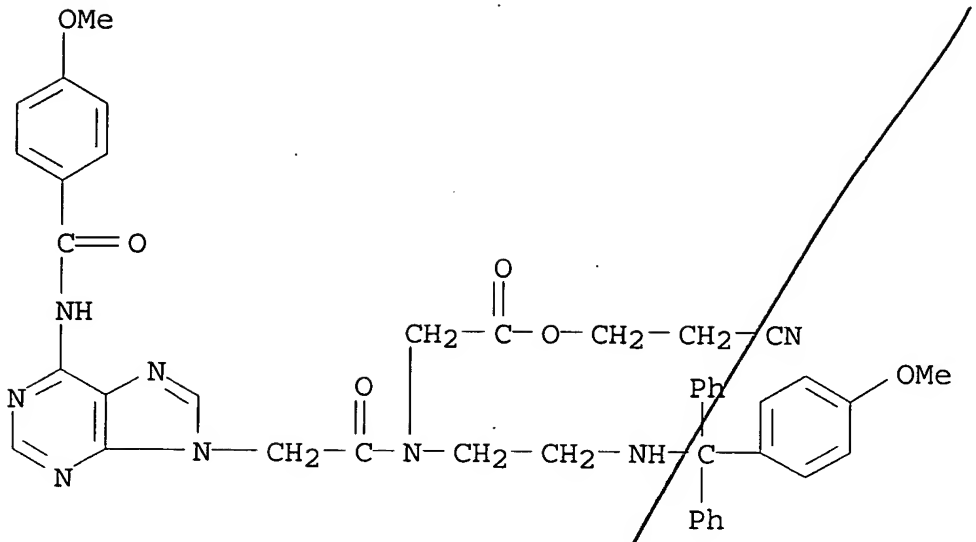
2-cyanoethyl ester (9CI) (CA INDEX NAME)



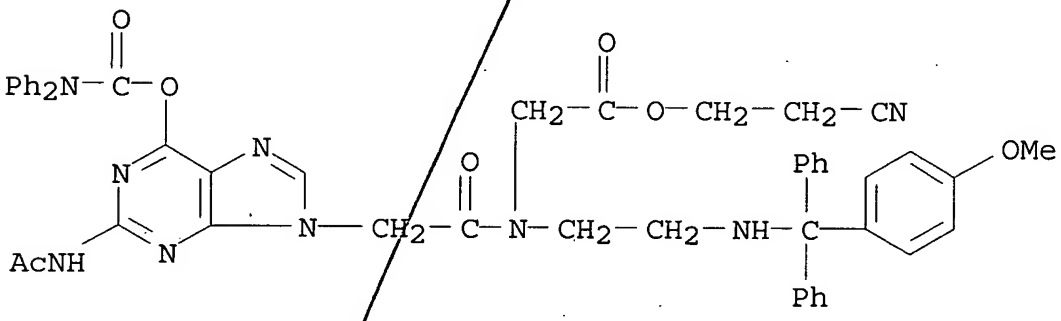
RN 244764-45-2 ZCAPLUS
CN Glycine, N-[[4-[[4-(1,1-dimethylethyl)benzoyl]amino]-2-oxo-1(2H)-pyrimidinyl]acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



RN 244764-46-3 ZCAPLUS
CN Glycine, N-[[6-[(4-methoxybenzoyl)amino]-9H-purin-9-yl]acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



RN 244764-47-4 ZCAPLUS
CN Glycine, N-[[2-(acetylamino)-6-[[(diphenylamino)carbonyl]oxy]-9H-purin-9-yl]acetyl]-N-[2-[[(4-methoxyphenyl)diphenylmethyl]amino]ethyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



IT **244764-59-8P 244764-62-3P**
(prepn. of peptide nucleic acid monomers carrying acid-labile groups for the protection of the amino function)
IT **244764-42-9P 244764-44-1P 244764-45-2P**
244764-46-3P 244764-47-4P
(prepn. of peptide nucleic acid monomers carrying acid-labile groups for the protection of the amino function)

L6 ANSWER 12 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1998:621076 Document No. 129:265462 Dry powder formulations of polynucleotide complexes for inhalation delivery to the respiratory tract. Szoka, Francis C., Jr.; Rolland, Alain; Wang, Jinkang (Regents of the University of California, USA). U.S. US 5811406 A 19980922, 31 pp., Cont.-in-part of U.S. Ser. No. 482,110.

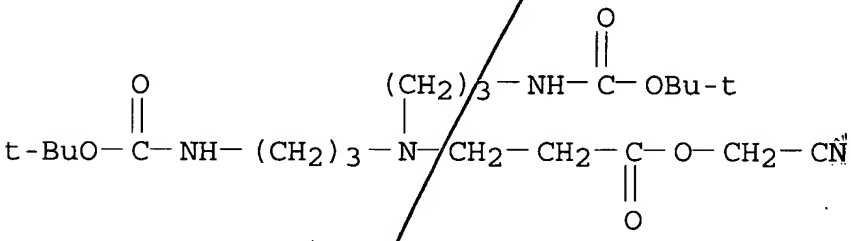
(English). CODEN: USXXAM. APPLICATION: US 1995-482254 19950609. PRIORITY: US 1995-482110 19950607; US 1995-485430 19950607.

AB Polynucleotide complexes are stabilized by adding a cryoprotectant compd. and lyophilizing the resulting formulation. The lyophilized formulations are milled or sieved into a dry powder formulation which may be used to deliver the polynucleotide complex. Delivery of the polynucleotide to a desired cell tissue is accomplished by contacting the tissue with the powder to rehydrate it. In a preferred embodiment, a dry powder formulation is used to transfer genetic information to the cells of the respiratory tract.

IT **171977-75-6P**
(dry powder formulations of polynucleotide complexes for inhalation delivery to the respiratory tract)

RN 171977-75-6 ZCAPLUS

CN 12-Oxa-2,6,10-triazatetradecanoic acid, 6-[3-(cyanomethoxy)-3-oxopropyl]-13,13-dimethyl-11-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

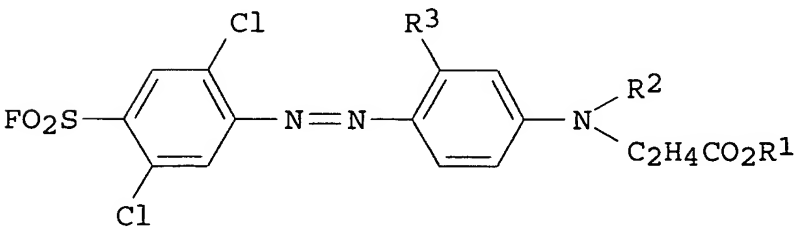


IT **171977-75-6P**
(dry powder formulations of polynucleotide complexes for inhalation delivery to the respiratory tract)

L6 ANSWER 13 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1998:112932 Document No. 128:155633 Ink and toner compositions based on derivatives of 3-alkyl-n-alkyl-n-(alkoxycarbonylalkyl)-4-((2,5-dichloro-4-fluorosulfonylphenyl)azo)aniline. Gregory, Peter; Hall, Nigel (Zeneca Limited, UK). Brit. UK Pat. Appl. GB 2312433 A1 19971029, 14 pp. (English). CODEN: BAXXDU. APPLICATION: GB 1997-6291 19970326. PRIORITY: GB 1996-8486 19960425.

GI



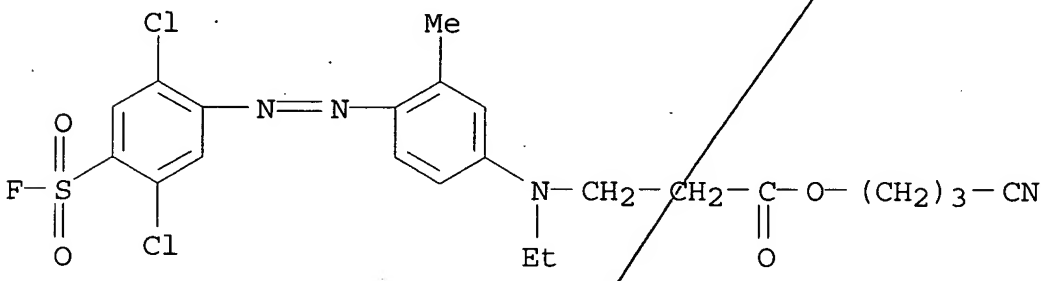
I

AB An ink compn. comprises: (i) a monoazo dye of structure I (R1 = C3H5CN, C2H4Cl, C2C4OCOH3; R2, R3 = C1-6 alkyl) and (ii) a medium comprising a low m.p. solid, an org. solvent, or a mixt. of water and one or more water-sol. org. solvents. A toner resin compn. comprises dye I and a toner resin. Also claimed is a process for ink-jet printing of a substrate with the inks and a process for ink-jet printing of a textile material with the inks.

IT **193896-95-6P**
(prepn. of derivs. of 3-alkyl-n-alkyl-n-(alkoxycarbonylalkyl)-4-((2,5-dichloro-4-fluorosulfonylphenyl)azo)aniline)

RN 193896-95-6 ZCAPLUS

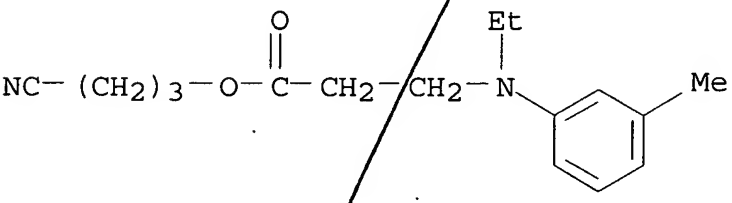
CN .beta.-Alanine, N-[4-[[2,5-dichloro-4-(fluorosulfonyl)phenyl]azo]-3-methylphenyl]-N-ethyl-, 3-cyanopropyl ester (9CI) (CA INDEX NAME)



IT **193896-99-0**
(prepn. of derivs. of 3-alkyl-n-alkyl-n-(alkoxycarbonylalkyl)-4-((2,5-dichloro-4-fluorosulfonylphenyl)azo)aniline)

RN 193896-99-0 ZCAPLUS

CN .beta.-Alanine, N-ethyl-N-(3-methylphenyl)-, 3-cyanopropyl ester (9CI) (CA INDEX NAME)



IT **193896-95-6P**
(prepn. of derivs. of 3-alkyl-n-alkyl-n-(alkoxycarbonylalkyl)-4-((2,5-dichloro-4-fluorosulfonylphenyl)azo)aniline)

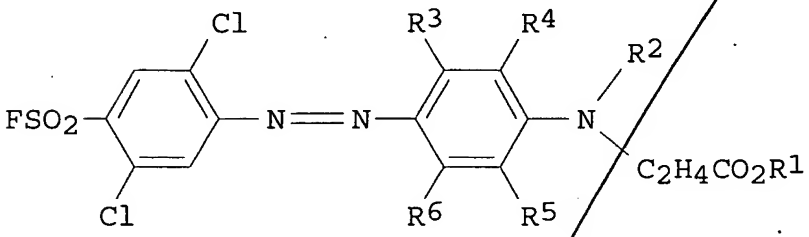
IT **193896-99-0**
(prepn. of derivs. of 3-alkyl-n-alkyl-n-(alkoxycarbonylalkyl)-4-((2,5-dichloro-4-fluorosulfonylphenyl)azo)aniline)

L6 ANSWER 14 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1997:513667 Document No. 127:177699 Disperse monoazo dyes containing a

fluorosulfonyl group, their manufacture and use. Hall, Nigel (Zeneca Ltd., UK; Hall, Nigel). PCT Int. Appl. WO 9727247 A1 19970731, 9 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1996-GB3093 19961216. PRIORITY: GB 1996-1644 19960126; GB 1996-7599 19960412.

GI



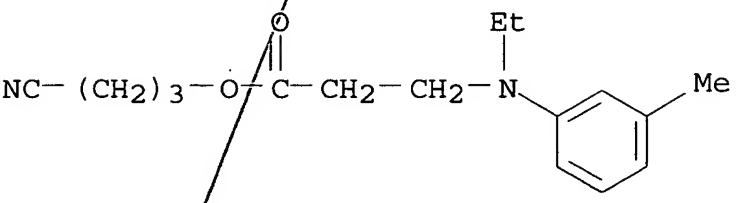
I

AB The dyes have the structure I (R1 = C3H6CN, C2H4Cl, C3H6Cl, C2H4OAc, C2H4O2CCH2Cl; R2, R3 = C1-6 alkyl; R4-R6 = H, F, Cl, Br, I, SO2F, nonionic org. group). The dyes can be employed for the coloring of synthetic textile material. Thus, 4,2,5-H2NC6H2Cl2SO2F was diazotized and coupled with 3-MeC6H4NEtCH2CH2CO2(CH2)3CN to give I [R1 = (CH2)3CN, R2 = Et, R3 = Me, R4-R6 = H], .lambda.max in CH2Cl2 515 nm, bluish red on polyester fibers with better fastness than the homolog with R1 = CH2CH2CN.

IT **193896-99-0**
(coupling component; prepn. of fast monoazo dyes contg. a fluorosulfonyl group)

RN 193896-99-0 ZCAPLUS

CN .beta.-Alanine, N-ethyl-N-(3-methylphenyl)-, 3-cyanopropyl ester (9CI) (CA INDEX NAME)

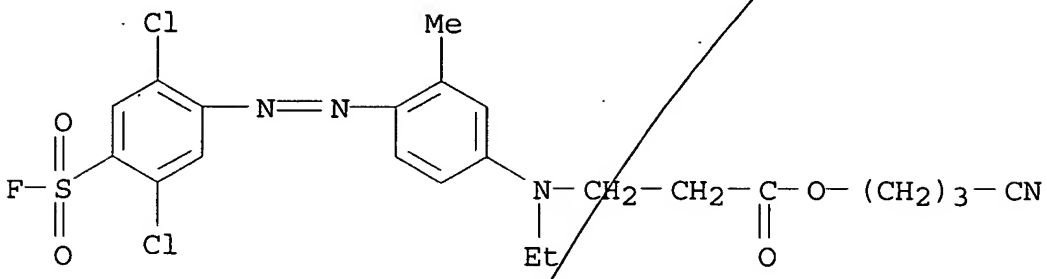


IT **193896-95-6P**
(red; prepn. of fast monoazo dyes contg. a fluorosulfonyl group)

RN 193896-95-6 ZCAPLUS

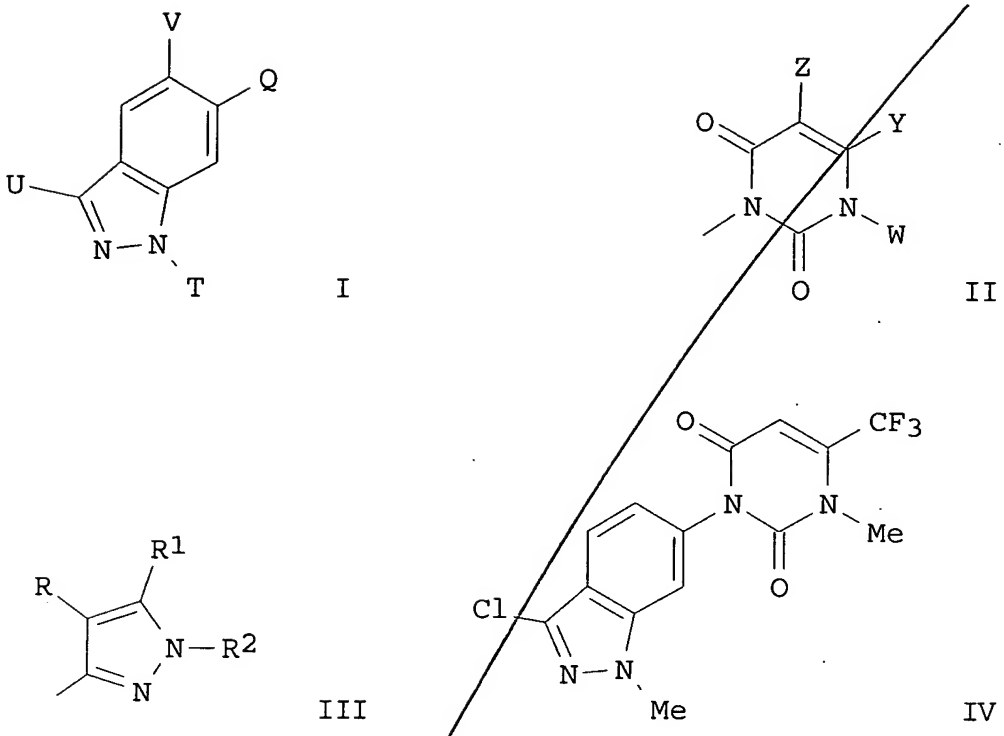
CN .beta.-Alanine, N-[4-[[2,5-dichloro-4-(fluorosulfonyl)phenyl]azo]-3-

methylphenyl]-N-ethyl-, 3-cyanopropyl ester (9CI) (CA INDEX NAME)



IT **193896-99-0**
(coupling component; prepn. of fast monoazo dyes contg. a fluorosulfonyl group)
IT **193896-95-6P**
(red; prepn. of fast monoazo dyes contg. a fluorosulfonyl group)

L6 ANSWER 15 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1997:356481 Document No. 126:330612 Preparation of herbicidal 6-heterocyclylindazoles. Maravetz, Lester L.; Theodoridis, George (FMC Corp., USA; Maravetz, Lester, L.; Theodoridis, George). PCT Int. Appl. WO 9712884 A1 19970410, 94 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1996-US15963 19961003. PRIORITY: US 1995-4782 19951004.
GI

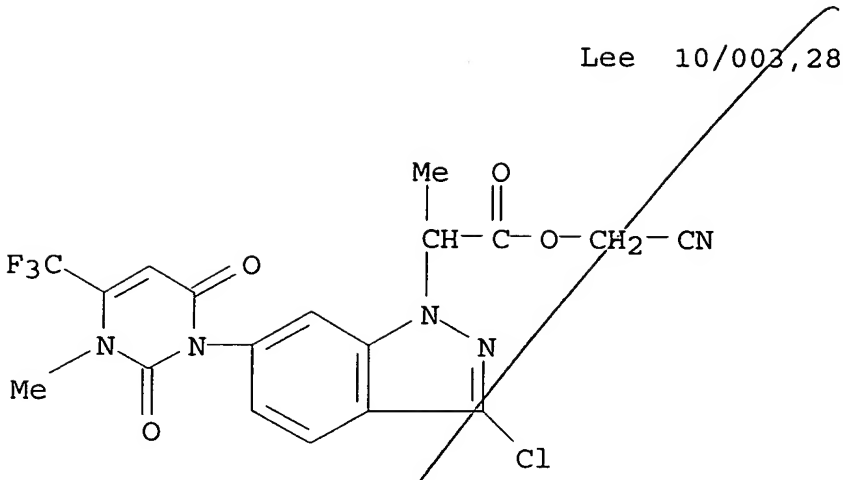


AB The title compds. [I; Q = II, III (wherein W = H, Na, NH2, alkyl, haloalkyl; Y = alkyl, haloalkyl; Z = H, halo; R = halo; R1 = haloalkoxy; R2 = alkyl); T = H, alkyl, cycloalkyl, etc.; U = H, halo, alkyl, NO2; V = H, halo], useful as herbicides, were prepd. Thus, treatment of Et 3-amino-4,4,4-trifluoro-2-butenoate with NaH in THF followed by addn. of (3-chloro-1-methylindazol-6-yl)isocyanate, and methylation of the resulting 3-(3-chloro-1-methylindazol-6-yl)-6-trifluoromethyl-2,4(1H,3H)-pyrimidinedione Na salt with MeI in DMF afforded IV which showed 100% control against, e.g., velvetleaf and morningglory at 0.3 kg/ha.

IT **189559-10-2P**
(prepn. of herbicidal 6-heterocyclylindazoles)

RN 189559-10-2 ZCAPLUS

CN 1H-Indazole-1-acetic acid, 3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-.alpha.-methyl-, cyanomethyl ester (9CI) (CA INDEX NAME)



IT **189559-10-2P**
(prepn. of herbicidal 6-heterocyclylindazoles)

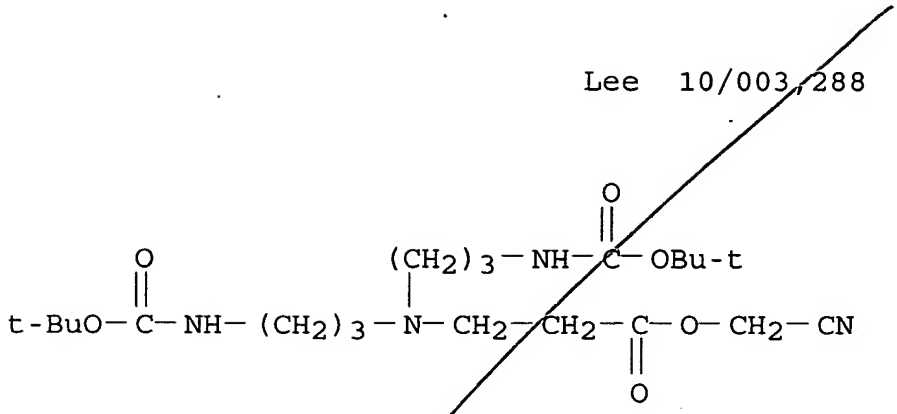
L6 ANSWER 16 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1997:140261 Document No. 126:148479 Stabilization of polynucleotide complexes. Szoka, Francis C., Jr.; Wang, Jinkang (Regents of the University of California, USA). PCT Int. Appl. WO 9640265 A1 19961219, 50 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1996-US7866 19960528. PRIORITY: US 1995-485430 19950607.

AB Polynucleotide complexes are stabilized by adding a cryoprotectant compd. and lyophilizing the resulting formulation. Cryoprotectant compds. comprise carbohydrates, preferably lactose and sucrose, but also glucose, maltodextrins, mannitol, sorbitol, trehalose, and others. Betaines, prolines, and other amino acids may also be useful. Preferably, DNA complexes are cryoprotected with lactose at concns. of about 1.25% to about 10% (w/vol). Conventional buffers may also be added to the mixt. The lyophilized formulations may be stored for extended periods of time and then rehydrated prior to use.

IT **171977-75-6P**
(stabilization and lyophilization of polynucleotide complexes for storage prior to gene therapy)

RN 171977-75-6 ZCAPLUS

CN 12-Oxa-2,6,10-triazatetradecanoic acid, 6-[3-(cyanomethoxy)-3-oxopropyl]-13,13-dimethyl-11-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

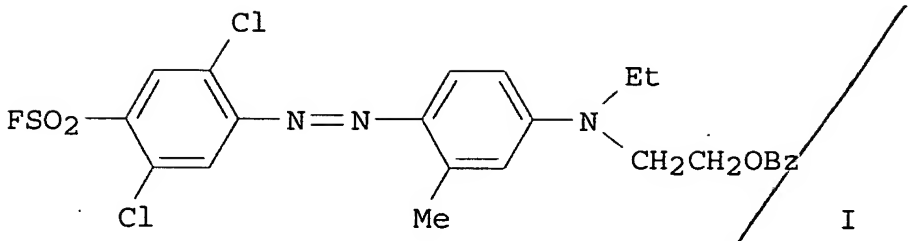


IT **171977-75-6P**
(stabilization and lyophilization of polynucleotide complexes for storage prior to gene therapy)

L6 ANSWER 17 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1996:134049 Document No. 124:175810 Preparation of heterocyclic compounds as photochromic substances. Tanizawa, Tsuneyoshi; Kobayakawa, Takashi (Tokuyama Kk, Japan). Jpn. Kokai Tokkyo Koho JP 07285931 A2 19951031 Heisei, 35 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-80685 19940419.
GI For diagram(s), see printed CA Issue.
AB The title compds. I [ring Y = (un)substituted arom. hydrocarbon, etc.; X1 = (un)substituted cyclopropyl; ring Z = (un)substituted norbornylidene, etc.; X = O, etc.] are claimed. Thiophene deriv. II [X = NCH2CO2Me] (III) was prepd. from II [X = O]. III showed photochromic property and had good heat stability.
IT **173972-50-4P**
(prepn. of heterocyclic compds. as photochromic substances)
RN 173972-50-4 ZCAPLUS
CN 1-Pyrrolidineacetic acid, 3-[(2-carboxycyclopropyl)(1-ethyl-1H-indol-3-yl)methylene]-4-(octahydro-2,4a-dihydroxy-2,6-methano-1H-cyclobuta[1,2:1,4]dicyclopenten-8-ylidene)-2,5-dioxo-, .alpha.-(2-cyanoethyl) ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **173972-50-4P**
(prepn. of heterocyclic compds. as photochromic substances)

L6 ANSWER 18 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1995:973502 Document No. 123:343359 Monoazo dyes containing a fluorosulfonyl group and their use. Hall, Nigel (Zeneca Ltd., UK). PCT Int. Appl. WO 9520014 A1 19950727, 65 pp. DESIGNATED STATES: W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1994-GB2831 19941230. PRIORITY: GB 1994-972 19940119.
GI



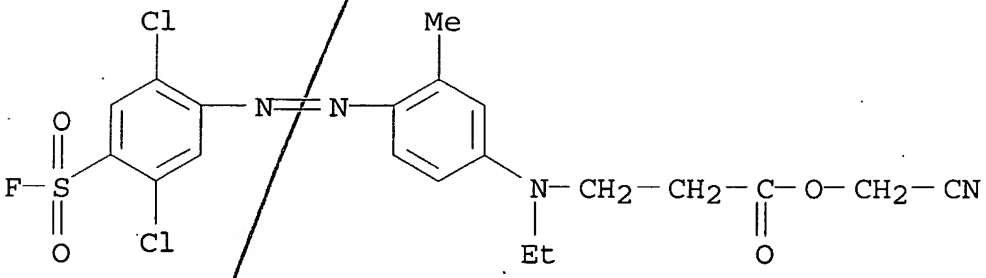
I

AB Disperse monoazo dyes AN:ND, where A and D are optionally substituted heterocyclic or carbocyclic groups and A and/or D carries directly .gtoreq.1 SO2F group or carries a substituent to which .gtoreq.1 SO2F group is attached, except for certain specified dyes previously known, were prepd. and are used for coloring synthetic fiber textiles and for bulk dyeing of plastics. The presence of one or more SO2F groups in a dye mol. generally improves the properties of that dye and confers good wetfastness and lightfastness properties. Thus, 2,5-Cl2C6H3NH2 was chlorosulfonated with ClSO3H, DMF, and SOCl2, and the sulfonyl chloride product was converted with KF to the sulfonyl fluoride, which was diazotized and coupled with 3-MeC6H4NEtCH2CH2OBz to give I, bluish red on polyester fibers.

IT **171244-59-0P 171244-60-3P 171245-87-7P 171246-07-4P**
(dye for polyester fibers)

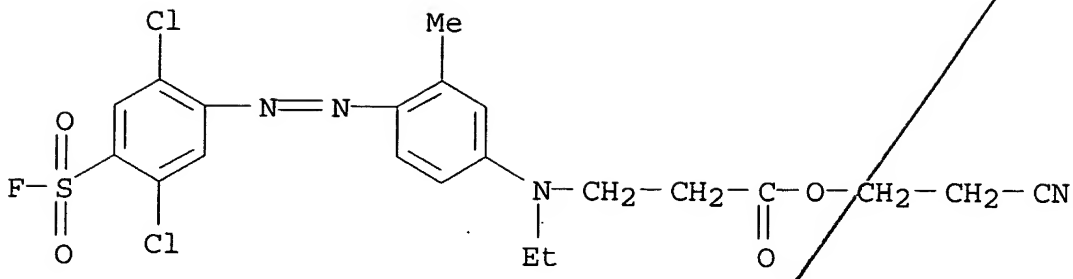
RN 171244-59-0 ZCAPLUS

CN .beta.-Alanine, N-[4-[[2,5-dichloro-4-(fluorosulfonyl)phenyl]azo]-3-methylphenyl]-N-ethyl-, cyanomethyl ester (9CI) (CA INDEX NAME)

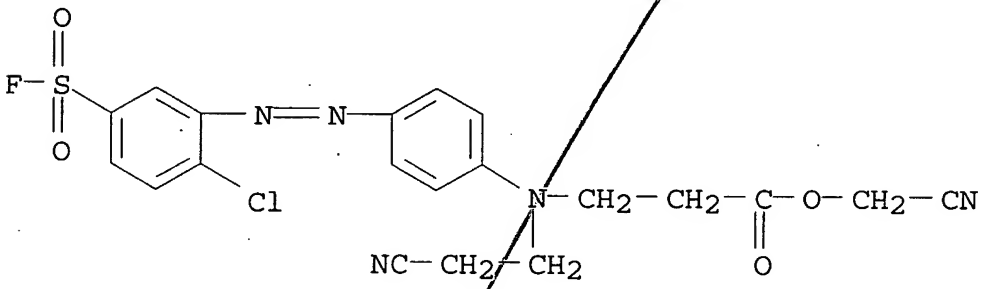


RN 171244-60-3 ZCAPLUS

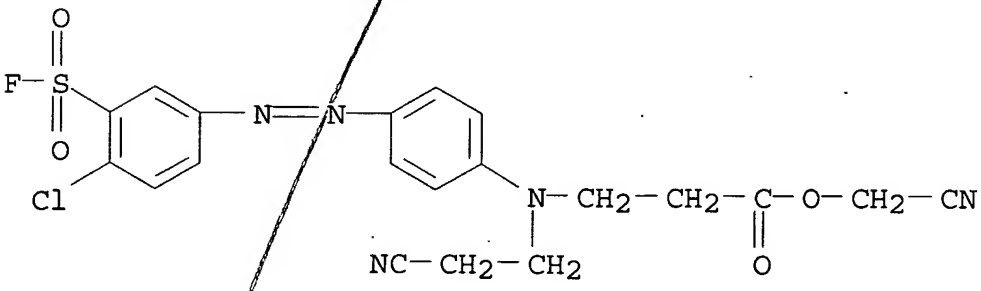
CN .beta.-Alanine, N-[4-[[2,5-dichloro-4-(fluorosulfonyl)phenyl]azo]-3-methylphenyl]-N-ethyl-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



RN 171245-87-7 ZCAPLUS
CN .beta.-Alanine, N-[4-[[2-chloro-5-(fluorosulfonyl)phenyl]azo]phenyl]-N-(2-cyanoethyl)-, cyanomethyl ester (9CI) (CA INDEX NAME)



RN 171246-07-4 ZCAPLUS
CN .beta.-Alanine, N-[4-[[4-chloro-3-(fluorosulfonyl)phenyl]azo]phenyl]-N-(2-cyanoethyl)-, cyanomethyl ester (9CI) (CA INDEX NAME)



IT **171244-59-0P 171244-60-3P 171245-87-7P**
171246-07-4P
(dye for polyester fibers)

L6 ANSWER 19 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1995:843495 Document No. 124:37597 Synthesis of multivalent cationic cholesteryl lipids for use as gene delivery vehicles. Wang, Jinkang; Szoka, Francis C. Jr. (School Pharmacy, University California, San Francisco, CA, 94143-0446, USA). Proceedings of the

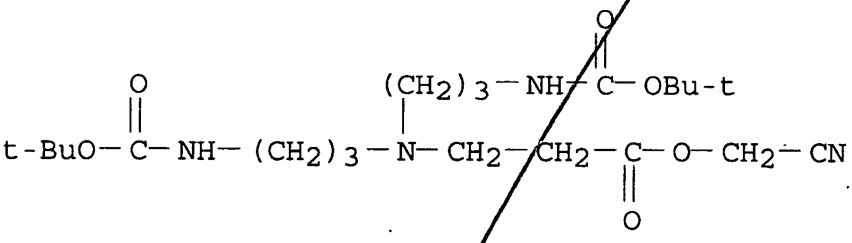
International Symposium on Controlled Release of Bioactive Materials, 22nd, 414-15 (English) 1995. CODEN: PCRMEY. ISSN: 1022-0178. Publisher: Controlled Release Society, Inc..

AB The synthesis and transfection efficiency of 2 new cationic derivs. are reported. Liposomes made form the cationic lipids and dioleoylphosphatidylethanolamine showed good transfection efficiency for use as gene delivery vehicles.

IT **171977-75-6P**
(prepn. and reaction with cholesteryl amino deriv.)

RN 171977-75-6 ZCAPLUS

CN 12-Oxa-2,6,10-triazatetradecanoic acid, 6-[3-(cyanomethoxy)-3-oxopropyl]-13,13-dimethyl-11-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



IT **171977-75-6P**
(prepn. and reaction with cholesteryl amino deriv.)

L6 ANSWER 20 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

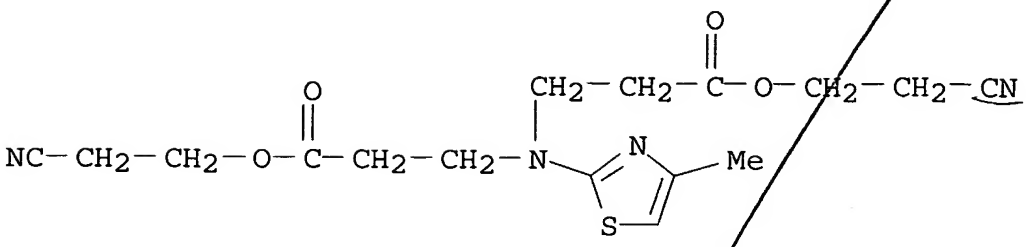
1995:597114 Document No. 123:41837 Synthesis, properties, and structure of 2-amino-4-methylthiazoledipropionic acid and the stability of its zinc complex. Neikovskii, S. I.; Gorenich, E. A.; Krasovskii, V. A. (Dnepropetr. Inzh.-Stroit. Inst., Ukraine). Zhurnal Neorganicheskoi Khimii, 40(3), 459-61 (Russian) 1995. CODEN: ZNOKAQ. ISSN: 0044-457X. Publisher: MAIK Nauka.

AB 2-Amino-4-methylthiazoledipropionic acid was prepd. from the dicyanoethyl deriv. in HCl. The acid dissocn. const. of the ligand and the stability const. of its 1:1 Zn complex were detd.

IT **164597-13-1**
(for prepn. of acid)

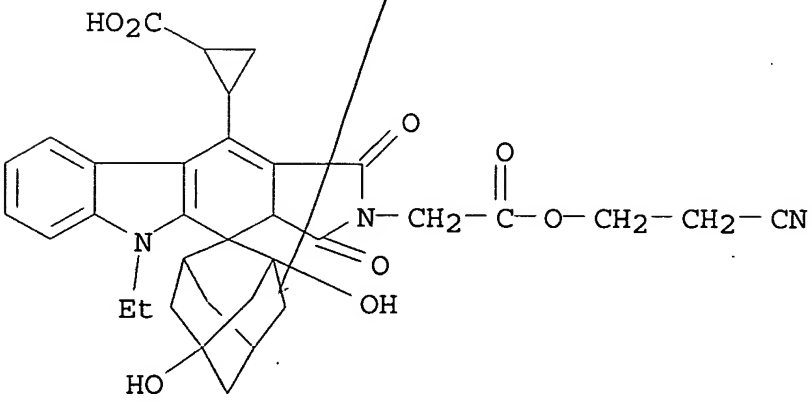
RN 164597-13-1 ZCAPLUS

CN .beta.-Alanine, N-[3-(2-cyanoethoxy)-3-oxopropyl]-N-(4-methyl-2-thiazolyl)-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



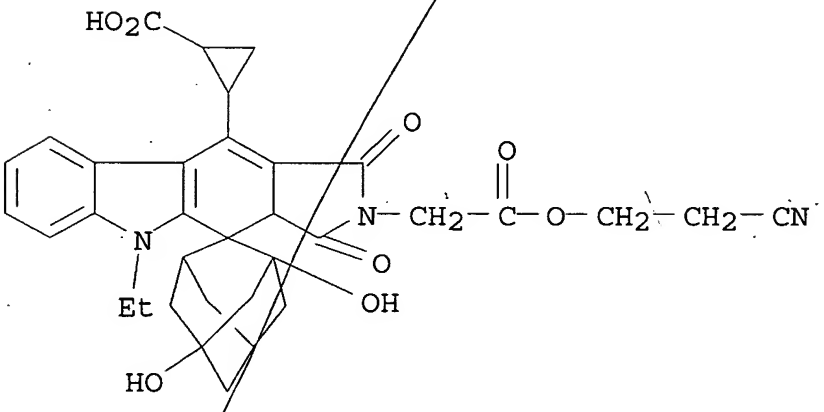
IT **164597-13-1**
(for prepn. of acid)

L6 ANSWER 21 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1995:520421 Document No. 122:265356 Preparation of fulgide and fulgimide photochromic compounds. Imura, Tomohito; Tanizawa, Tsuneyoshi; Kobayakawa, Takashi (Tokuyama Soda Kk, Japan). Jpn. Kokai Tokkyo Koho JP 06345772 A2 19941220 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-167315 19930615.
GI For diagram(s), see printed CA Issue.
AB The title compds. I [Q1 = (un)substituted divalent arom. hydrocarbon moiety, etc.; Cpr = (un)substituted cyclopropyl; Q2 = (un)substituted norbornylidene, etc.; X = O, etc.] are prepd. Fulgimide II (prepn. given) showed .lambda.max at 563 nm.
IT **162689-65-8P**
(prepn. of fulgide and fulgimide photochromic compds.)
RN 162689-65-8 ZCAPLUS
CN Cyclopropanecarboxylic acid, 2-[2-[2-(2-cyanoethoxy)-2-oxoethyl]-5-ethyl-2,3,3a,5-tetrahydro-1',5'-dihydroxy-1,3-dioxospiro[pyrrolo[3,4-b]carbazol-4(1H)-2'-tricyclo[3.3.1.13,7]decan]-10-yl]- (9CI) (CA INDEX NAME)



IT **162689-65-8P**
(prepn. of fulgide and fulgimide photochromic compds.)

L6 ANSWER 22 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1995:520378 Document No. 122:265237 Preparation of spirofulgide and -fulgimide analogs as photochromic compounds. Imura, Satoshi; Tanizawa, Tsuneyoshi; Kobayakawa, Takashi (Tokuyama Corp., Japan). Eur. Pat. Appl. EP 629626 A2 19941221, 69 pp. DESIGNATED STATES: R: DE, ES, FR, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1994-304140 19940608. PRIORITY: JP 1993-141023 19930611.
GI For diagram(s), see printed CA Issue.
AB Title compds. [I; R = (un)substituted cyclopropyl; X = O, NR11, NA1B1A2mB2nR12, NA3R4; A1-A3 = (cyclo)alkylene, alkylidene, etc.; B1,B2 = CO, CO2, CONH, etc.; R4 = naphthyl, halo, cyano, NO2; R11 = H, alkyl, aryl; R12 = alkyl, naphthyl(alkyl), etc.; Y = atoms to form an arom. or heterocyclic ring; Z = atoms to form a norbornyl, bicyclo[3.3.1]nonyl, or adamantyl ring system; m,n = 0 or 1; M = 0 = n] were prepd. Thus, fulgide II was condensed with H2NCH2CO2Me and the product refluxed in AcCl to give fulgimide III (X = NCH2CO2Me). Data for photochromic activity of I were given.
IT **162689-65-8P**
(prepn. of spirofulgide and -fulgimide analogs as photochromic compds.)
RN 162689-65-8 ZCAPLUS
CN Cyclopropanecarboxylic acid, 2-[2-[2-(2-cyanoethoxy)-2-oxoethyl]-5-ethyl-2,3,3a,5-tetrahydro-1',5'-dihydroxy-1,3-dioxospiro[pyrrolo[3,4-b]carbazol-4(1H)-2'-tricyclo[3.3.1.13,7]decan]-10-yl]- (9CI) (CA INDEX NAME)



IT **162689-65-8P**
(prepn. of spirofulgide and -fulgimide analogs as photochromic compds.)

L6 ANSWER 23 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1994:580372 Document No. 121:180372 Renewable resources. 2. Poly-Diels-Alder additions with disorboylamides as bisdienes and a dimaleoylamide as bisdienophile. Reinecke, Martin; Ritter, Helmut (Bergische Universitaet GH Wuppertal, Wuppertal, 42097, Germany). Macromolecular Chemistry and Physics, 195(7), 2445-55 (English)

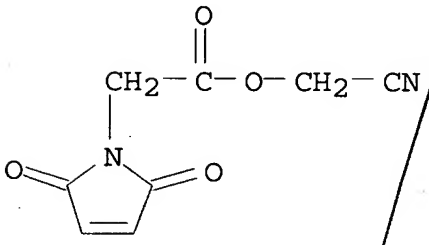
1994. CODEN: MCHPES. ISSN: 1022-1352.

AB The Diels-Alder polymn. between the disorboylamides CH3CH:CHCH:CHC(O)NHCH(CO2CH3)(CH2)4NHC(O)CH:CHCH:CHCH3 and CH3CH:CHCH:CHC(O)NHCH(CH2Ph)C(O)NHCH(CO2CH3)(CH2)4NHC(O)CH(CH2Ph)NHC(O)CH:CHCH:CHCH3 and the dimaleoylamide RCH2C(O)NHCH(CO2CH3)(CH2)4NHC(O)CH2R (R- maleimide) to oligomeric polyamide-polyimides is described. The applicability of the maleoyl and the sorboyl system for Diels-Alder polymns. is demonstrated in a low-mol.-wt. model cycloaddn. All presented compds. contain a high amt. of mols. derived from renewable resources.

IT **14109-69-4**
(cycloaddn. of, as model reaction for disorboylamide Diels-Alder polymn.)

RN 14109-69-4 ZCAPLUS

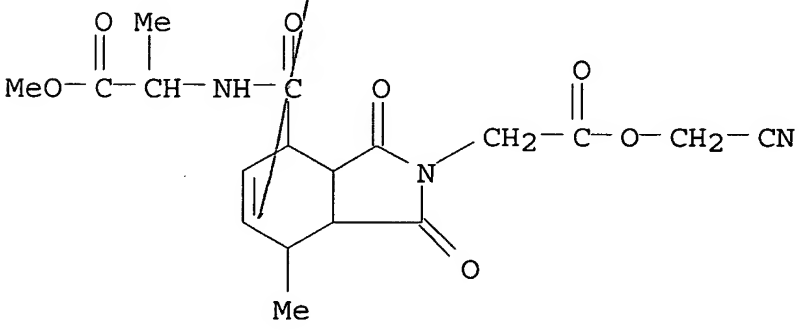
CN 1H-Pyrrole-1-acetic acid, 2,5-dihydro-2,5-dioxo-, cyanomethyl ester (9CI) (CA INDEX NAME)



IT **157730-54-6P**
(prepn. and characterization of, in model reaction for disorboylamide Diels-Alder polymn.)

RN 157730-54-6 ZCAPLUS

CN 2H-Isoindole-2-acetic acid, 1,3,3a,4,7,7a-hexahydro-4-[[(2-methoxy-1-methyl-2-oxoethyl)amino]carbonyl]-7-methyl-1,3-dioxo-, cyanomethyl ester (9CI) (CA INDEX NAME)

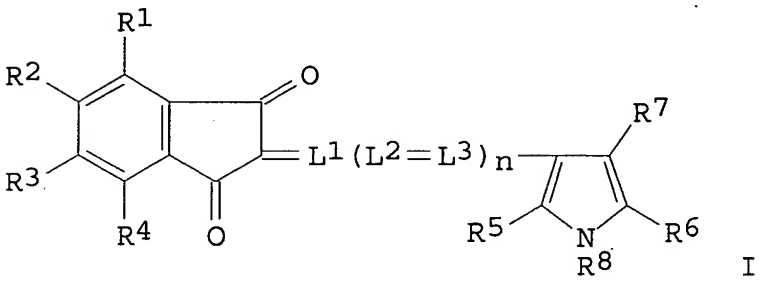


IT **14109-69-4**
(cycloaddn. of, as model reaction for disorboylamide Diels-Alder polymn.)

IT **157730-54-6P**
(prepn. and characterization of, in model reaction for disorboylamide Diels-Alder polymn.)

L6 ANSWER 24 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1994:231839 Document No. 120:231839 Silver halide photographic material. Jimbo, Yoshihiro; Tamoto, Koji (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 566063 A1 19931020, 56 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1993-105978 19930413. PRIORITY: JP 1992-119587 19920414.

GI



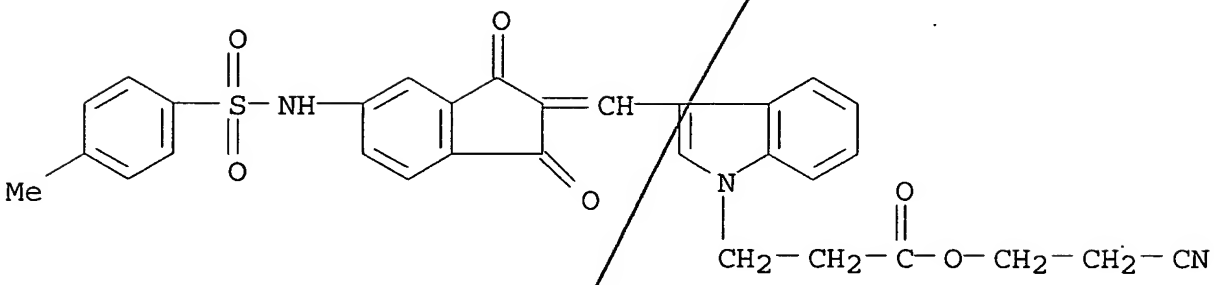
I

AB A Ag halide photog. material comprising a support and having thereon .gtoreq.1 Ag halide photog. emulsion layer and contg. .gtoreq.1 dye represented by the following formula I [R1-R4 = H, alkyl, aryl, -OR10, -COOR10, -CONR10R11, -CONHCOR10, -CONHSO2R10, -NR11SO2R10, -NR10R11 or a halogen atom; R5, R6 and R7 = H, alkyl, aryl; R8 = R7, amino; L1, L2 and L3 each represents a methine group; n represents 0, 1 or 2; R10 and R11, = R7; or R1 and R2, R2 and R3, R3 and R4 or R6 R7 may combine and form a ring]. The dye is photochem. inert and can easily be decolorized and dissolved out.

IT **154137-21-0**
(as dye in photog. films)

RN 154137-21-0 ZCAPLUS

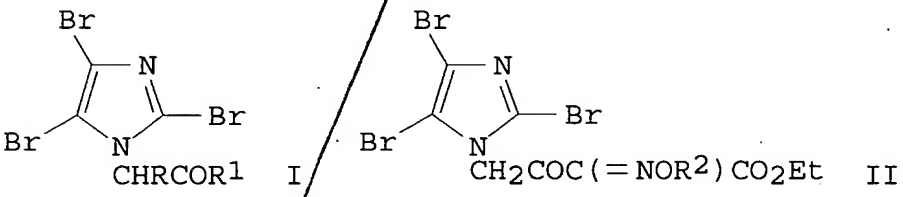
CN 1H-Indole-1-propanoic acid, 3-[[1,3-dihydro-5-[[(4-methylphenyl)sulfonyl]amino]-1,3-dioxo-2H-inden-2-ylidene]methyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



IT **154137-21-0**
(as dye in photog. films)

L6 ANSWER 25 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1994:8521 Document No. 120:8521 N-Substituted 2,4,5-tribromoimidazole derivatives. Veverka, M.; Dovicicova, A. (Inst. Biotechnol., Slovak Tech. Univ., Bratislava, CS-812 37, Czech.). Chemical Papers, 47(1), 41-4 (English) 1993. CODEN: CHPAEG. ISSN: 0366-6352.

GI

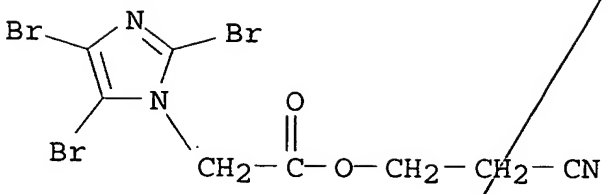


AB Synthesis of N-substituted 2,4,5-tribromoimidazole derivs. I (R = H, MeCO, Me; R1 = EtO, 2-MeC6H4, NHPh, etc.) and II (R2 = Me, Bu, etc.) with potential pesticide activity is described. E.g., 2,4,5-tribromoimidazole was treated with NaH/THF, then with .alpha.-halo acid derivs. to give I.

IT **151357-18-5P**
(prepn. of)

RN 151357-18-5 ZCAPLUS

CN 1H-Imidazole-1-acetic acid, 2,4,5-tribromo-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



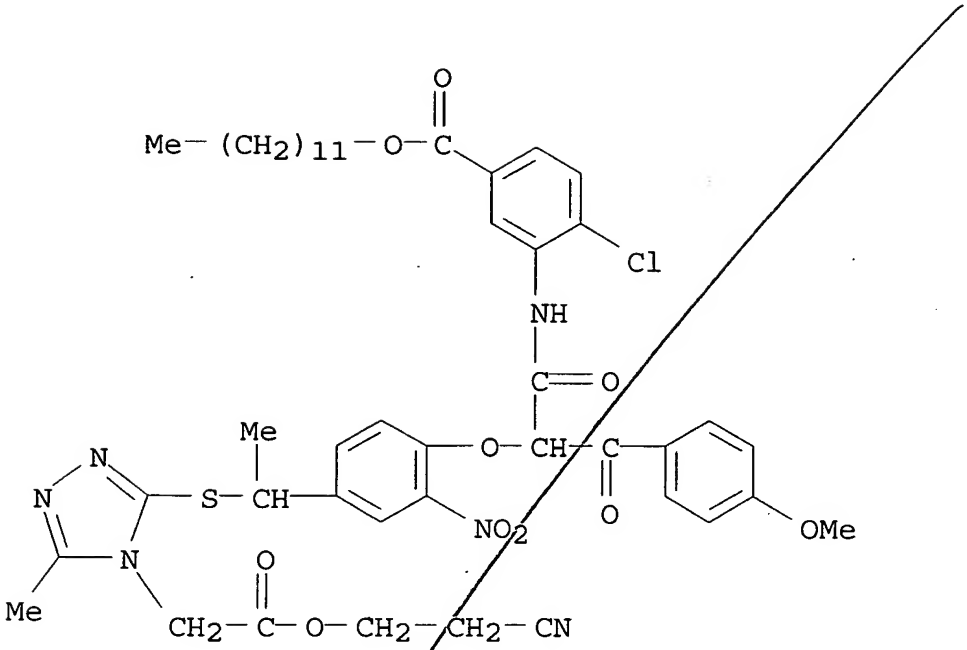
IT **151357-18-5P**
(prepn. of)

L6 ANSWER 26 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1992:265470 Document No. 116:265470 Method for processing silver halide color photographic material. Ishikawa, Masao; Koboshi, Shigeharu; Ueda, Yutaka; Kawamura, Tomoki; Kida, Shuji (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 04021847 A2 19920124 Heisei, 35 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-128396 19900516.

AB In the title method for processing a Ag halide color photog. material by imagewise exposure, color development, bleaching, and fixing, the photog. material contains a coupler represented by Cp(T)mZ(LY)n (Cp = a coupler residue; Z = a basic part of the compd. showing development inhibiting activity; Z is directly linked to the coupling position of the coupler when m = 0; Z is linked to the coupling position of the coupler via T when m = 1; Y = a substituent linked to Z via L; Y causes the development inhibiting activity of Z to be manifested; L = a linking group having chem. bonds which are cleaved in a developing soln.; m = 0 or 1; n = 1 or 2) and the bleach-fixing soln. contains a diethylenetriaminepentaacetic acid iron (III) complex salt (bleaching agent). The title method is highly efficient.

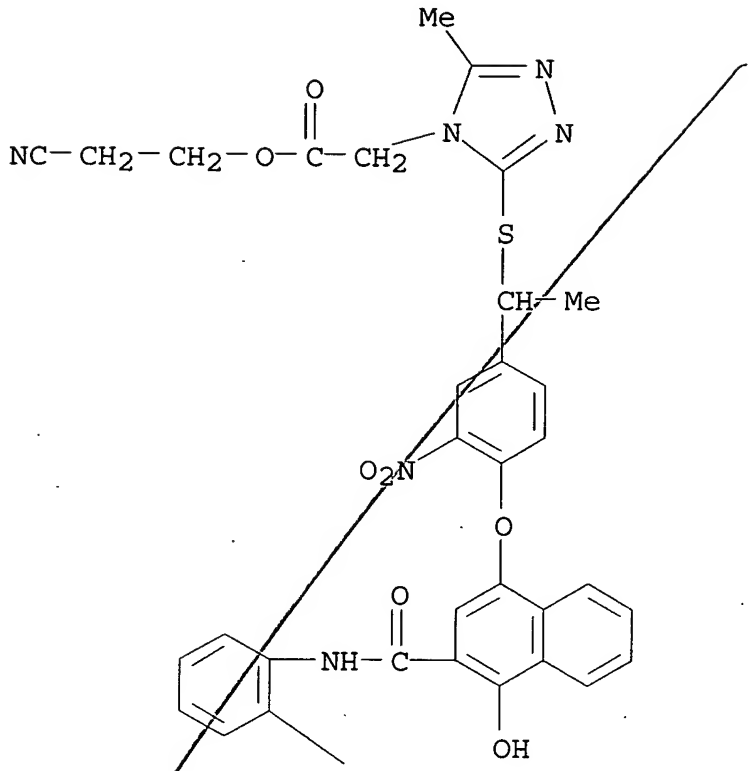
IT **141721-25-7 141721-26-8**
(photog. coupler)

RN 141721-25-7 ZCAPLUS
CN 4H-1,2,4-Triazole-4-acetic acid, 3-[[1-[4-[2-[[2-chloro-5-[(dodecyloxy)carbonyl]phenyl]amino]-1-(4-methoxybenzoyl)-2-oxoethoxy]-3-nitrophenyl]ethyl]thio]-5-methyl-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

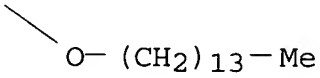


RN 141721-26-8 ZCAPLUS
CN 4H-1,2,4-Triazole-4-acetic acid, 3-[[1-[4-[[4-hydroxy-3-[[[2-(tetradecyloxy)phenyl]amino]carbonyl]-1-naphthalenyl]oxy]-3-nitrophenyl]ethyl]thio]-5-methyl-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

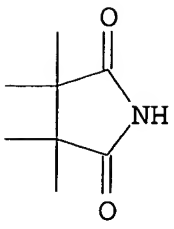


PAGE 2-A



IT **141721-25-7 141721-26-8**
(photog. coupler)

L6 ANSWER 27 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1991:408573 Document No. 115:8573 Preparation of N-substituted dicarboxyimides. Tanaka, Takashi; Imura, Tomohito; Kawaguchi, Ikuzo; Kida, Yasuji (Tokuyama Soda Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 03031255 A2 19910212 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-163650 19890628.
GI



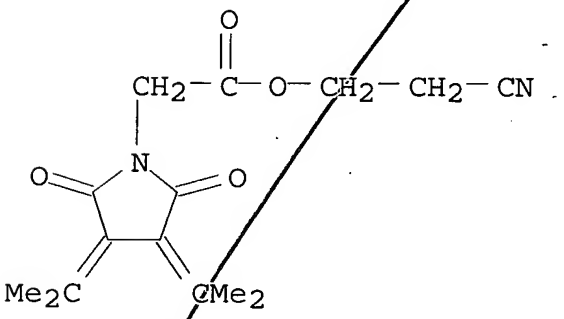
I

AB The title compds., some of which are photochromic, are prepd. by treatment of dicarboximides having a partial structure I with halo compds. in which halogen is directly bonded to C, in polar aprotic solvents in the presence of salts of alkali metal or alk. earth hydroxides with weak acids. A DMF soln. of 2,2,3,3-tetramethylsuccinimide was treated with K2CO3 and MeCOCH2Cl at 5.degree. for 5 h to give 80% N-acetylmethyl-2,2,3,3-tetramethylsuccinimide, vs. 8% for a control using K instead of K2CO3.

IT **134371-27-0P**
(prepn. of, by condensation of succinimides with halohydrocarbons)

RN 134371-27-0 ZCAPLUS

CN 1-Pyrrolidineacetic acid, 3,4-bis(1-methylethylidene)-2,5-dioxo-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



IT **134371-27-0P**
(prepn. of, by condensation of succinimides with halohydrocarbons)

L6 ANSWER 28 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1989:632775 Document No. 111:232775 Preparation of fused-ring fulgides and fulgimides as photochromic substances. Tanaka, Takashi; Imura, Satoshi; Kida, Yasuji (Tokuyama Soda Co., Ltd., Japan). Eur. Pat. Appl. EP 316179 A2 19890517, 98 pp. DESIGNATED STATES: R: DE, FR, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1988-310608 19881110. PRIORITY: JP 1987-282131 19871110; JP 1987-283116 19871111; JP 1988-80250 19880402.

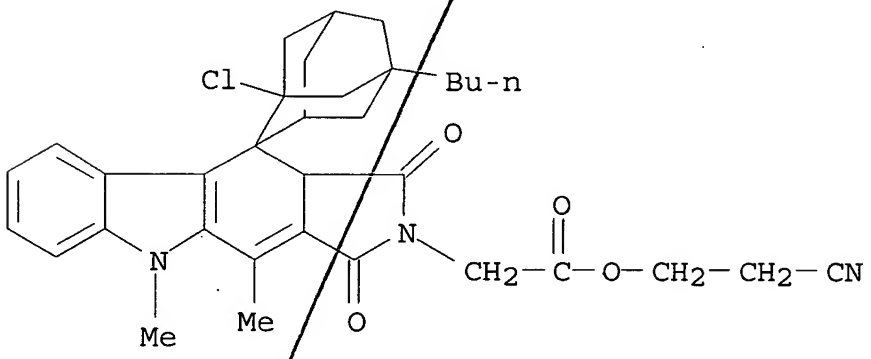
GI For diagram(s), see printed CA Issue.

AB The title compds. [I; R1 = (un)substituted hydrocarbyl, heterocyclyl; X = O, R2N; R2 = H, alkyl, aryl, R3B2nA2mB1A1, R4A3; A1, A2, A3 = alkylene, alkylidene, (alkyl)cycloalkylene; B1, B2 = O, CO, CO2, O2C, OCO2, CONH, NHCO; R3 = (un)substituted alkyl, naphthyl(alkyl); R4 = halo, cyano, NO2, (un)substituted naphthyl; Y = atoms to complete a fused, (un)substituted (hetero)arom. ring; Z = atoms to complete an (un)substituted spiroadamantane or spironorbornane ring; m, n = 0, 1; when m = 0, n = 0] were prepd. as photochromic substances with long half-life, suitable for incorporation into contact lenses. Thus, (2-adamantylidene)[1-(3-thienyl)ethylidene]succinic anhydride and H2NCH2CO2Me were heated 2 h at 50.degree. in PhMe to give a product which was successively reflexed in AcCl and then in o-Cl2C6H4 to give 27% thienoisoindoledione II. A mixt. of II 0.5, poly(Me methacrylate) 10, and C6H6 100 wt. parts was cast into a 0.1 mm film which had an initial absorbance of 0.62 at 535 nm after 60 s exposure to UV light from a Xe lamp. The half-life of the absorbance was 38 h under continuous irradn. The absorbance half-life was significantly extended by incorporation of com. UV stabilizers in the film.

IT **123804-03-5P**
(prepn. of, as photochromic substance)

RN 123804-03-5 ZCAPLUS

CN Spiro[pyrrolo[3,4-b]carbazole-10(2H),2'-tricyclo[3.3.1.13,7]decane]-2-acetic acid, 5'-butyl-1'-chloro-1,3,5,10a-tetrahydro-4,5-dimethyl-1,3-dioxo-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

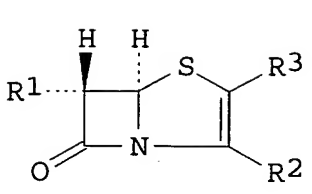


IT **123804-03-5P**
(prepn. of, as photochromic substance)

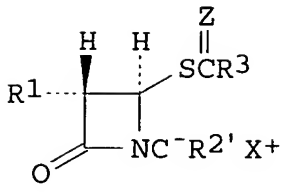
L6 ANSWER 29 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1988:112070 Document No. 108:112070 Preparation of 2-pyridylpenems as antibacterial agents. Lang, Marc (Ciba-Geigy A.-G. , Switz.). Eur. Pat. Appl. EP 246187 A2 19871119, 48 pp. DESIGNATED STATES: R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1987-810278 19870430. PRIORITY: CH 1986-1846 19860506.

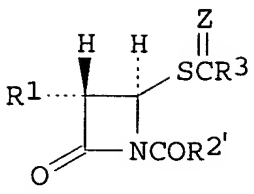
GI



I



II



III

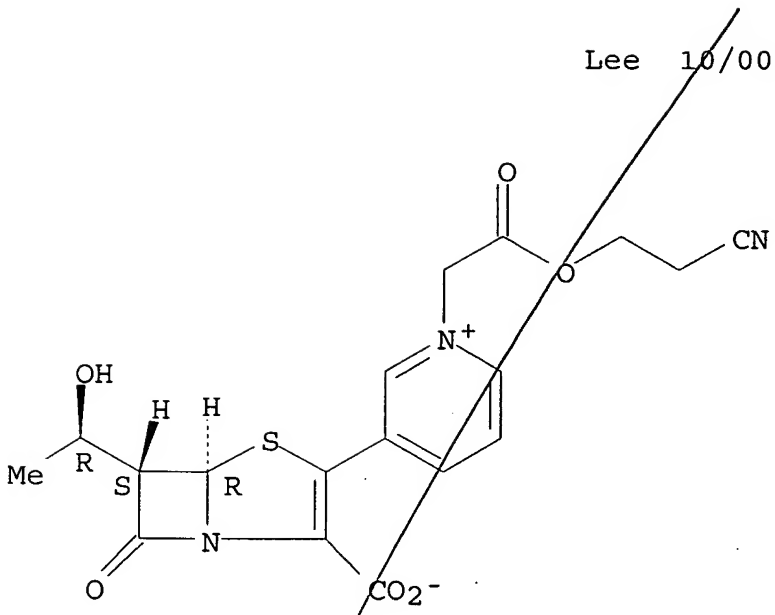
AB Penems I [R1 = alkoxy substituted by (un)protected OH; R2 = CO2H, functionally modified CO2H; R3 = (un)substituted 3- or 4-pyridyl] and their salts, useful as antibacterials, were prepd. a) by ring closure of ylide II (R2' = protected CO2H, Z = O, S; X+ = triply-substituted phosphonio, doubly esterified phosphono together with a cation), or b) treating III (R1, R3, R2', Z as above) with an org. compd. of trivalent P and, if desired, converting the product into other I of the invention. The Ag salt of allyl 2-[(3S,4R)-3-[(1R)-1-allyloxycarbonyloxyethyl]-4-mercapto-2-oxoazetidin-1-yl]-2-triphenylphosphoranylideneacetate was treated with pyridine, 4-dimethylaminopyridine, and nicotinoyl chloride-HCl to give the 4-nicotinoylthio analog which was refluxed in PhMe to give allyl (5R,6S)-2-(3-pyridyl)-6-[(1R)-1-allyloxycarbonyloxyethyl]-2-penem-3-carboxylate. A formulation comprised 0.5 g (5R,6S)-2-(3-pyridyl)-6-[(1R)-1-hydroxyethyl]-2-penem-3-carboxylic acid and 0.5 g mannitol, for ampul or vial.

IT **113142-16-8P**
(prepn. of, as penem antibacterial)

RN 113142-16-8 ZCAPLUS

CN Pyridinium, 3-[2-carboxy-6-(1-hydroxyethyl)-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-2-en-3-yl]-1-[2-(2-cyanoethoxy)-2-oxoethyl]-, inner salt, [5R-[5.alpha.,6.alpha.(R*)]]- (9CI) (CA INDEX NAME)

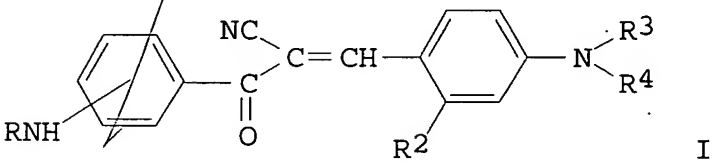
Absolute stereochemistry.



IT **113142-16-8P**
(prepn. of, as penem antibacterial)

L6 ANSWER 30 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1987:565355 Document No. 107:165355 Silver halide color photographic material. Adachi, Keiichi; Okada, Masahiro; Arakawa, Jun (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62056958 A2 19870312 Showa, 18 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-196107 19850906.

GI



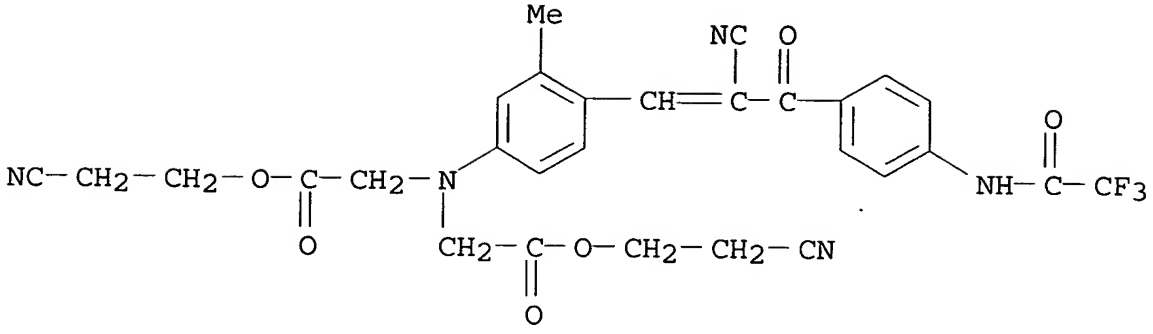
I

AB Claimed is a Ag halide color photog. material comprising on a support .gtoreq.1 Ag halide emulsion layer contg. .gtoreq.1 dye compd. I [R = SO2, R5CO, R6NHCO; R5 = C1-3 alkyl contg. .gtoreq.1 halo group; R1, R6 = C1-3 alkyl; R2 = H, C1-3 alkyl (alkoxy, alkylsulfonamide, or alkylcarbonamide), halo, OH; R3, R4 = (un)substituted C1-6 alkyl, or together may form a 5(6)-membered ring]. Said material shows improved sharpness and stain resistance.

IT **109904-73-6**
(reaction of, photog. yellow dye from)

RN 109904-73-6 ZCAPLUS

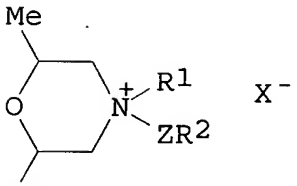
CN Glycine, N-[2-(2-cyanoethoxy)-2-oxoethyl]-N-[4-[2-cyano-3-oxo-3-[4-[(trifluoroacetyl)amino]phenyl]-1-propenyl]-3-methylphenyl]-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



IT **109904-73-6**
(reaction of, photog. yellow dye from)

L6 ANSWER 31 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1987:156487 Document No. 106:156487 Salts of morpholinocarboxylic esters and morpholinoalkyl phenyl ethers, processes for their preparation, and their use as fungicides and plant growth regulators.. Banasiak, Lothar; Leuner, Brita; Lyr, Horst; Nega, Eva; Sunkel, Marianne (Institut fuer Pflanzenschutzforschung Kleinmachnow, Ger. Dem. Rep.). Eur. Pat. Appl. EP 209763 A1 19870128, 41 pp. DESIGNATED STATES: R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1986-108916 19860701. PRIORITY: DD 1985-278323 19850705; DD 1985-278325 19850705.

GI

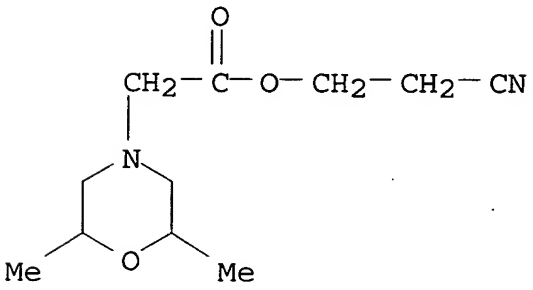


I

AB The title compds. [I; R = C6-20 alkyl; R2 = R3Z1CO, (un)substituted PhO; R3 = (halo)alkenyl, alkynyl, (un)substituted alkyl, cycloalkyl, aryl, aralkyl; X1 = anion of a nonphytotoxic acid; Z = O, S; Z1 = C1-6 alkylene; R3 and X- may be absent] were prepd. as fungicides and plant growth regulators. A mixt. of 30 g 4-isotridecyl-2,6-dimethylmorpholine and 10.9 g ClCH2CO2Me was refluxed 20 h in MeCN contg. catalytic NaI to give 38 g I (R1 = isotridecyl, R2 = CO2Me, X = Cl, Z = CH2)(II). At 10 .mu.g/mL II gave 88% inhibition of growth of Botrytis cinerea. At 1000 mg/L II reduced the growth of cucumber plants by 32%.

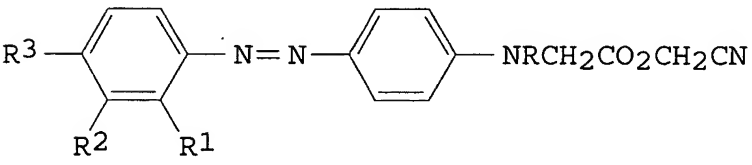
IT **107561-98-8DP**, quaternary derivs.
(prepn. of, as fungicide and plant growth inhibitor)

RN 107561-98-8 ZCAPLUS
CN 4-Morpholineacetic acid, 2,6-dimethyl-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

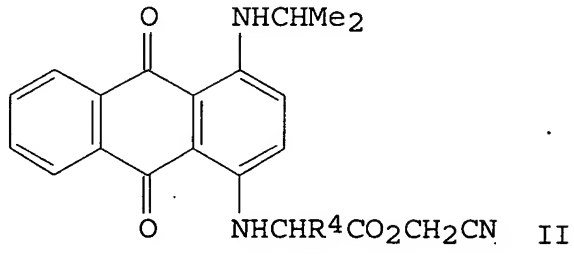


IT **107561-98-8DP**, quaternary derivs.
(prepn. of, as fungicide and plant growth inhibitor)

L6 ANSWER 32 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1985:26342 Document No. 102:26342 Synthesis and use of new, fiber-reactive dyes suitable for transfer-printing nylon. Borovas, Demetrios V. (Res. Dev. Dep., VIOCHROM S. A., Athens, Greece). Chimika Chronika, 12(3), 155-60 (English) 1983. CODEN: CMCRCZ. ISSN: 0366-693X.
GI



I



II

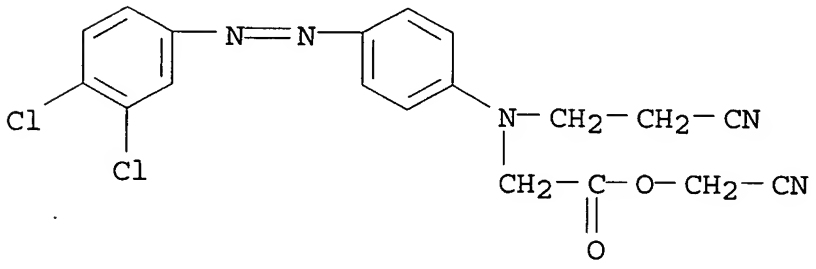
AB Yellow to red I (R = CH2CH2CN, Me; R1, R2 = H, Cl; R3 = Cl, NO2) and blue II (R4 = H, Me) were synthesized and tested as reactive dyes for transfer printing of nylon 66. Bright shades were obtained when printing paper impregnated with the dyes was pressed on nylon for 45 s at 200.degree., but an addnl. dry-heat fixing step for .ltoreq.2

min at 180.degree. was required to cause the dyes to react with the substrate. The dyes colored but did not react with acrylic or polyester substrates.

IT **94194-65-7P 94194-66-8P 94194-67-9P**
(prepn. and transfer printing properties of, as reactive dye on nylon)

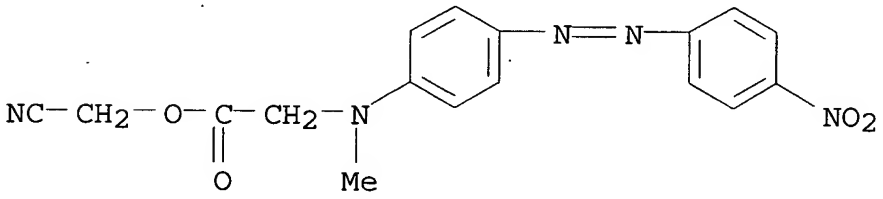
RN 94194-65-7 ZCAPLUS

CN Glycine, N-(2-cyanoethyl)-N-[4-[(3,4-dichlorophenyl)azo]phenyl]-, cyanomethyl ester (9CI) (CA INDEX NAME)



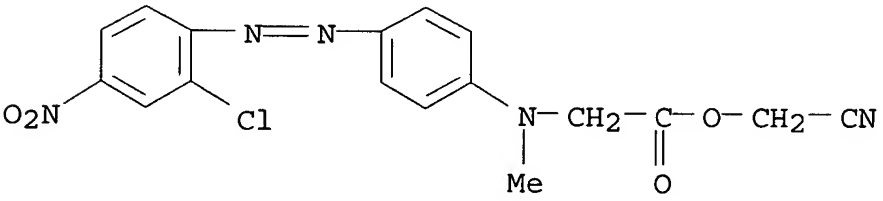
RN 94194-66-8 ZCAPLUS

CN Glycine, N-methyl-N-[4-[(4-nitrophenyl)azo]phenyl]-, cyanomethyl ester (9CI) (CA INDEX NAME)



RN 94194-67-9 ZCAPLUS

CN Glycine, N-[4-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-methyl-, cyanomethyl ester (9CI) (CA INDEX NAME)

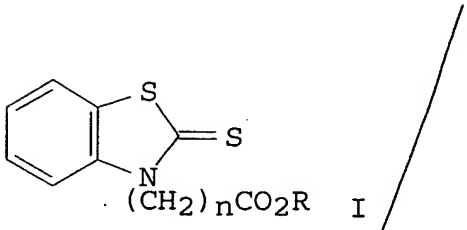


IT **94194-65-7P 94194-66-8P 94194-67-9P**
(prepn. and transfer printing properties of, as reactive dye on nylon)

L6 ANSWER 33 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1984:510909 Document No. 101:110909 N-Substituted thioxobenzothiazolines. D'Amico, John J. (Monsanto Co. , USA). U.S. US 4447618 A 19840508, 11 pp. (English). CODEN: USXXAM. APPLICATION: US 1979-55103 19790705.

GI



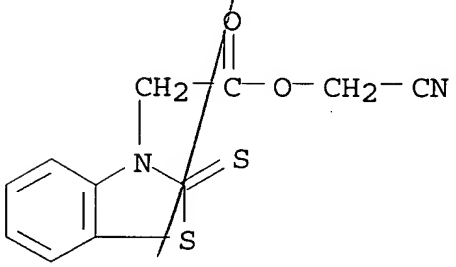
I

AB Thioxobenzothiazolines I (R = H, alkyl, haloalkyl, alkenyl, haloalkenyl; n = 1, 2) were prepd. Thus, addn. of 2-benzothiazolethiol to CH2:CHCN gave 2-thioxo-3-benzothiazolinepropionitrile, which was hydrolyzed to give I (R = H, n = 2). I are plant growth regulators. Various responses of Glycine max are reported.

IT **91624-43-0P**
(prepn. of)

RN 91624-43-0 ZCAPLUS

CN 3(2H)-Benzothiazoleacetic acid, 2-thioxo-, cyanomethyl ester (9CI) (CA INDEX NAME)

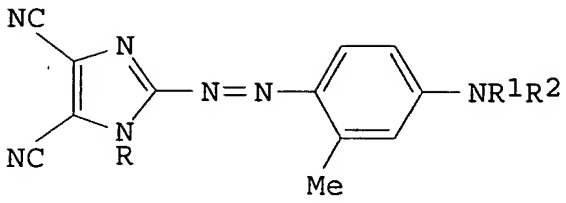


IT **91624-43-0P**
(prepn. of)

L6 ANSWER 34 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1983:18106 Document No. 98:18106 Cyanoimidazole-based disperse azo dyes. (Mitsubishi Chemical Industries Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 57109858 A2 19820708 Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1980-189016 19801226.

GI



I, R=CH_2CN

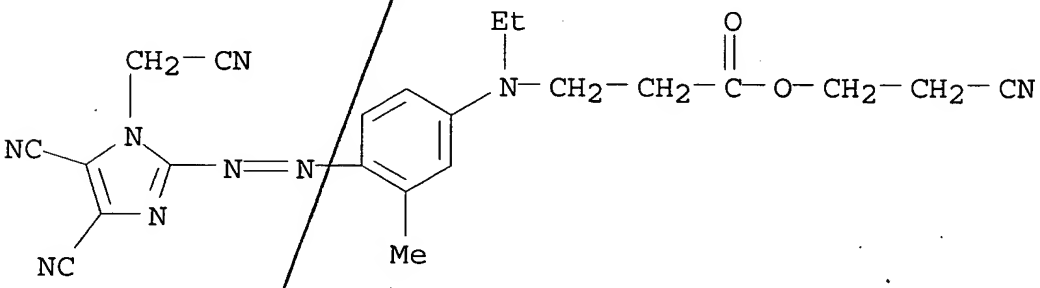
II, R=H

AB I (R1 = C1-8 alkyl, alkenyl; R2 = alkyl with O and/or CO2 group-contg. substituent) were prepd. and used for dyeing polyester fibers in bright red shades. For example, II (R1 = Et; R2 = CH2CO2CH2CH:CH2) [84047-11-0] was treated with ClCH2CN [107-14-2] in N-methylpyrrolidone to give I (R1 = Et; R2 = CH2CO2CH2CH:CH2) [84047-10-9], pure red on polyester fibers.

IT **84046-88-8**
(dye, for polyester fibers)

RN 84046-88-8 ZCAPLUS

CN .beta.-Alanine, N-[4-[[4,5-dicyano-1-(cyanomethyl)-1H-imidazol-2-yl]azo]-3-methylphenyl]-N-ethyl-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

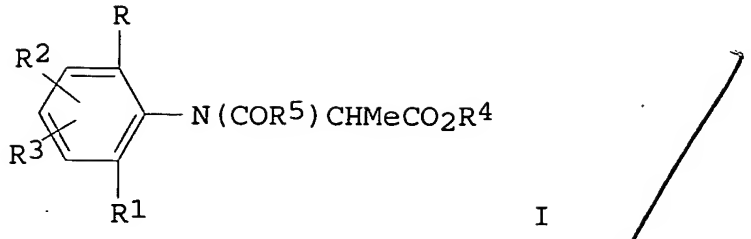


IT **84046-88-8**
(dye, for polyester fibers)

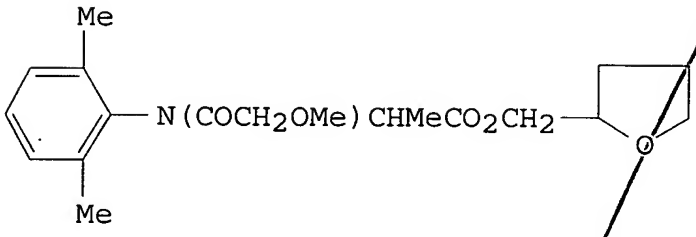
L6 ANSWER 35 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1980:620489 Document No. 93:220489 Aromatic pesticides. Hubele, Adolf; Kunz, Walter; Eckhardt, Wolfgang (Ciba-Geigy A.-G., Switz.). Ger. Offen. DE 2948734 19800619, 28 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1979-2948734 19791204.

GI



I



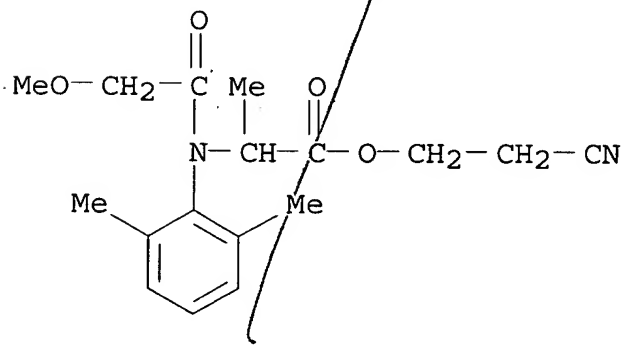
II

AB Anilides I (R, R1 = alkyl, alkoxy, halogen; R2 = H, alkyl halogen; R3 = H, Me; R4 = optionally substituted alkyl; R5 = optionally halogenated 2-furyl, 2-tetrahydrofuryl, optionally substituted CH2OH, CH2SH, CH2NHNH2, or CH2O3SH, pyrazolylmethyl, imidazolylmethyl, 1,2,4-triazolylmethyl) were prepd. Thus, 2,6-Me2C6H3N(COCH2OMe)CHMeCO2H was esterified with tetrahydrofururyl alc. to give the ester II which at 0.06% gave >90% protection against Phytophthora on tomatoes.

IT **75462-38-3P 75462-39-4P 75462-40-7P**
75462-42-9P 75462-43-0P 75462-45-2P
(prepn. and fungicidal activity of)

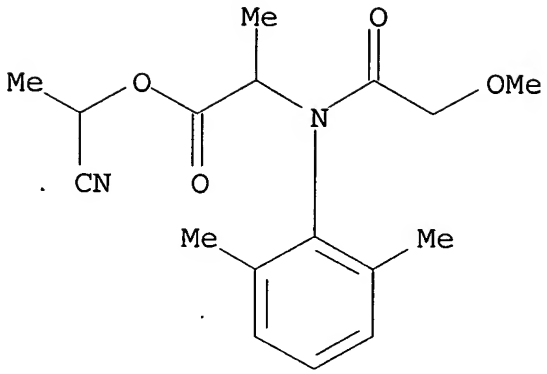
RN 75462-38-3 ZCAPLUS

CN Alanine, N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

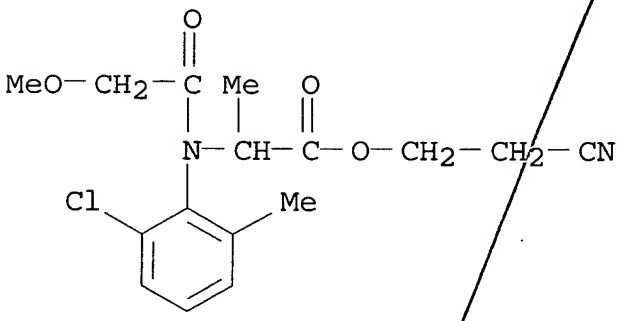


RN 75462-39-4 ZCAPLUS

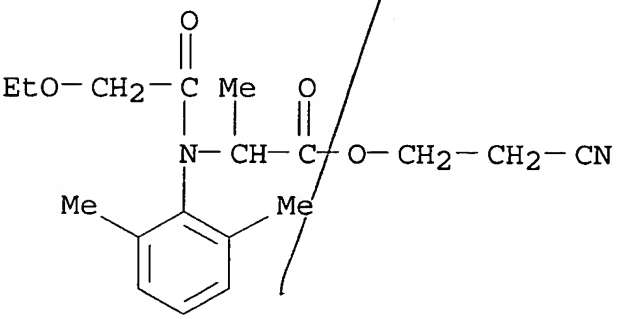
CN Alanine, N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-, 1-cyanoethyl ester (9CI) (CA INDEX NAME)



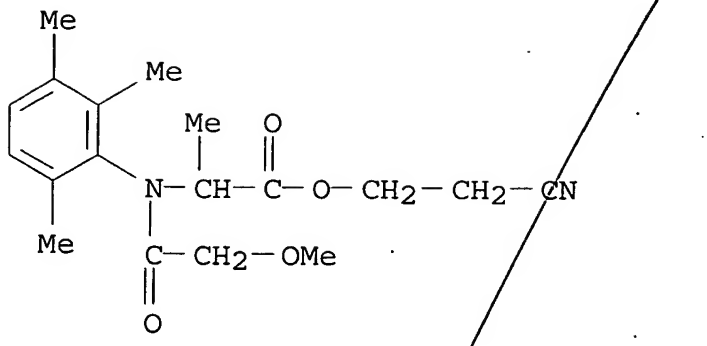
RN 75462-40-7 ZCAPLUS
CN Alanine, N-(2-chloro-6-methylphenyl)-N-(methoxyacetyl)-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



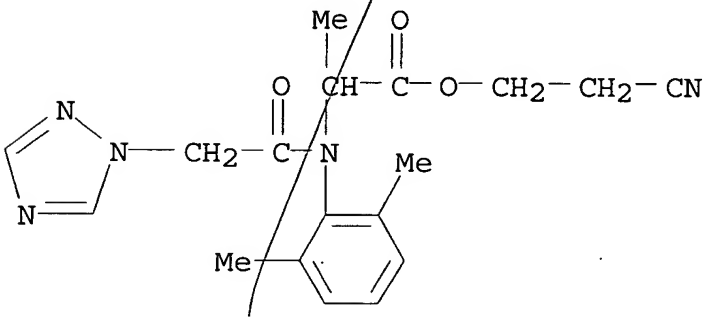
RN 75462-42-9 ZCAPLUS
CN Alanine, N-(2,6-dimethylphenyl)-N-(ethoxyacetyl)-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)



RN 75462-43-0 ZCAPLUS
CN Alanine, N-(methoxyacetyl)-N-(2,3,6-trimethylphenyl)-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

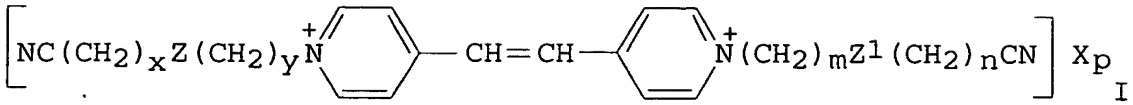


RN 75462-45-2 ZCAPLUS
CN Alanine, N-(2,6-dimethylphenyl)-N-(1H-1,2,4-triazol-1-ylacetyl)-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

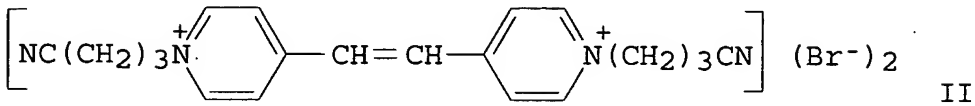


IT **75462-38-3P 75462-39-4P 75462-40-7P**
75462-42-9P 75462-43-0P 75462-45-2P
(prepn. and fungicidal activity of)

L6 ANSWER 36 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1980:172483 Document No. 92:172483 Electrochromic display devices. Ota, Tokuya; Sakata, Takeshi (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 54143782 19791109 Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1978-51835 19780428.
GI



I



II

AB Electrochromic display devices contain a compd. of the formula I (x, y, m, n, = 4-9; Z, Z1 = divalent moiety; p = pos. integer; X- = anion). The display devices exhibit low operational voltage, quick responses, and clear display. Thus, a soln. contg. II 0.05 and K2SO4 0.3M was used to prep. an electrochromic display device whose optical d. (of the color display, transmittance), service life, and color of the display were 0.28, 9 .times. 105 cycles, and yellow, resp.

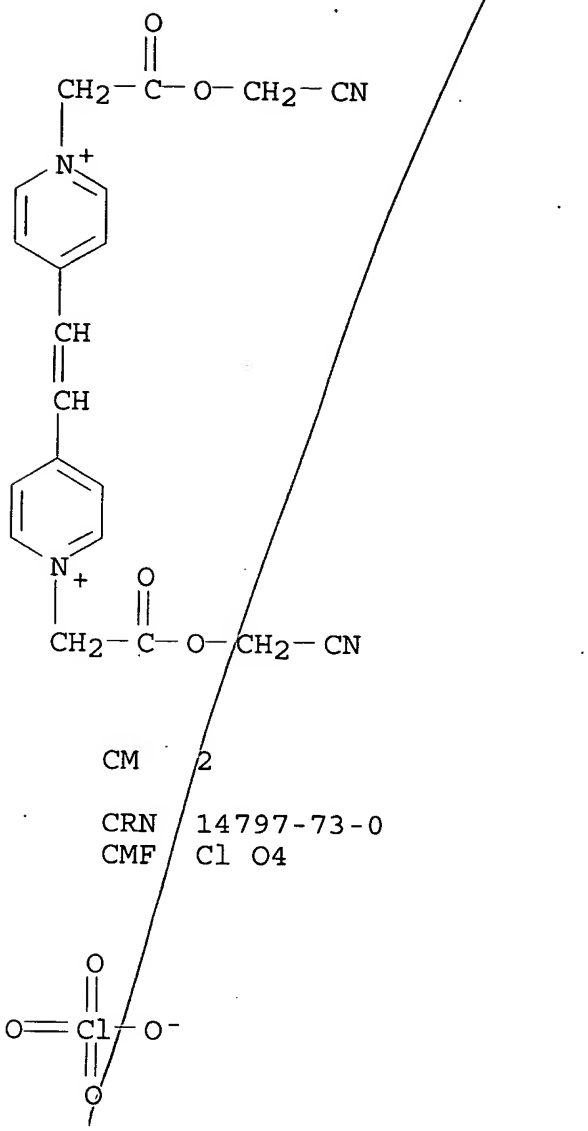
IT **73419-47-3 73419-48-4 73419-49-5 73419-53-1**
(electrochromic display devices contg.)

RN 73419-47-3 ZCAPLUS

CN Pyridinium, 4,4'-(1,2-ethenediyl)bis[1-[2-(cyanomethoxy)-2-oxoethyl]-, diperchlorate (9CI) (CA INDEX NAME)

CM 1

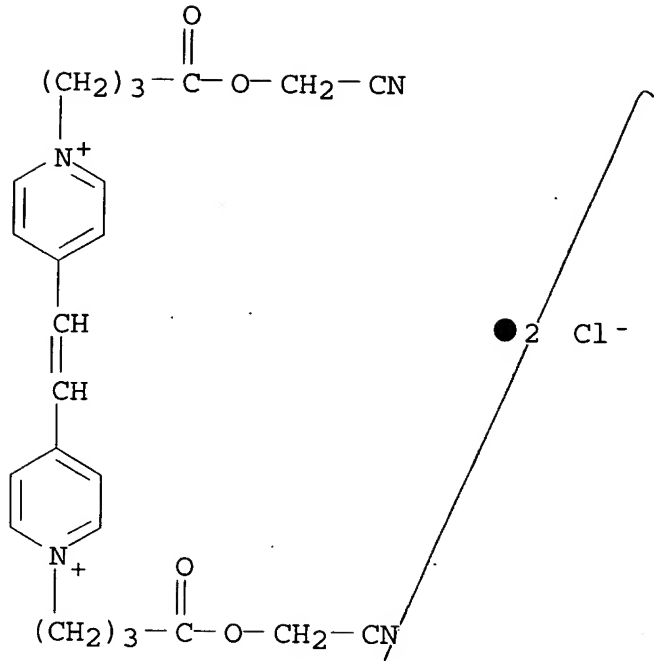
CRN 73419-46-2
CMF C20 H18 N4 O4



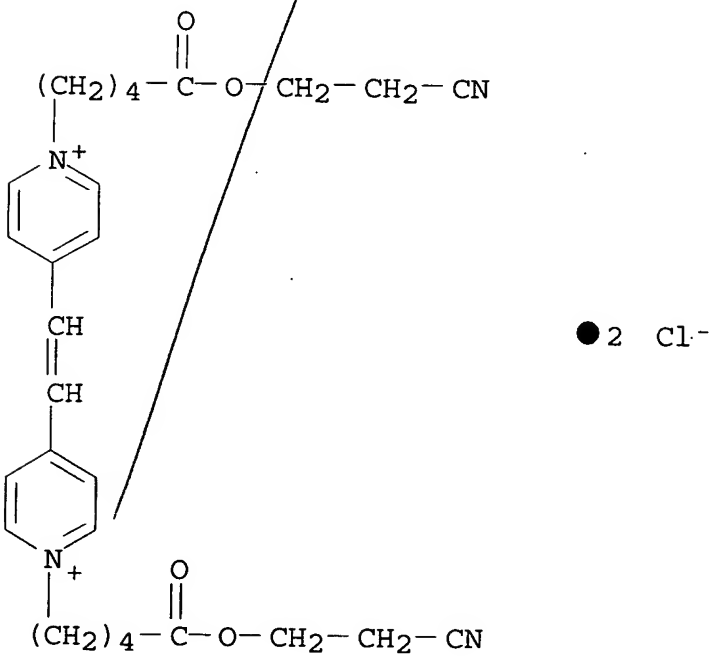
CM 2

CRN 14797-73-0
CMF Cl O4

RN 73419-48-4 ZCAPLUS
CN Pyridinium, 4,4'-(1,2-ethenediyl)bis[1-[4-(cyanomethoxy)-4-oxobutyl]-, dichloride (9CI) (CA INDEX NAME)



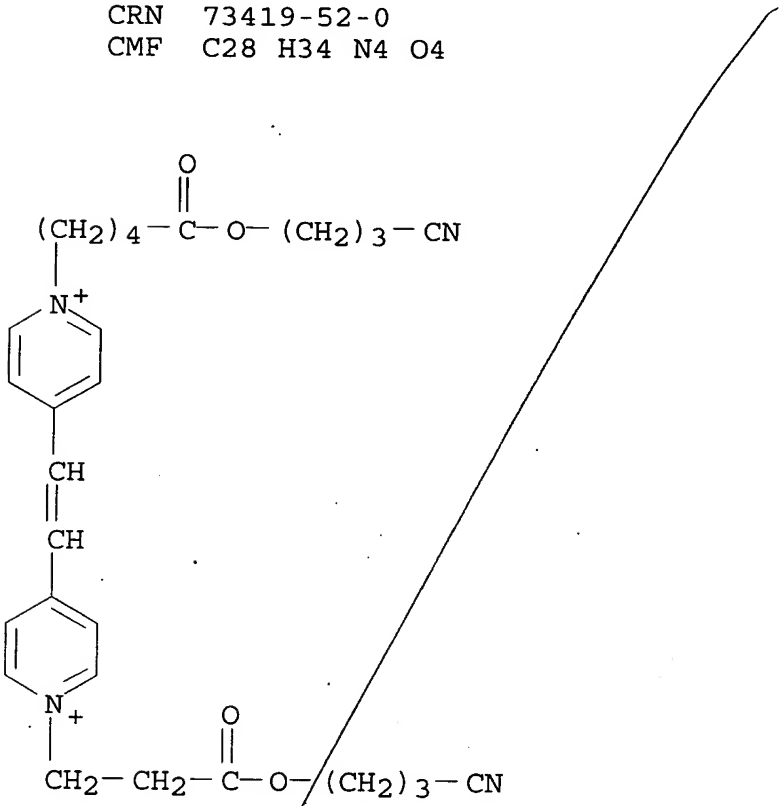
RN 73419-49-5 ZCAPLUS
CN Pyridinium, 4,4'-(1,2-ethenediyl)bis[1-[5-(2-cyanoethoxy)-5-oxopentyl]-, dichloride (9CI) (CA INDEX NAME)



RN 73419-53-1 ZCAPLUS
CN Pyridinium, 1-[5-(3-cyanopropoxy)-5-oxopentyl]-4-[2-[1-[3-(3-cyanopropoxy)-3-oxopropyl]pyridinium-4-yl]ethenyl]-, sulfate (1:1) (9CI) (CA INDEX NAME)

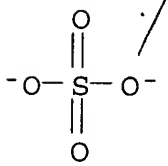
CM 1

CRN 73419-52-0
CMF C28 H34 N4 O4



CM 2

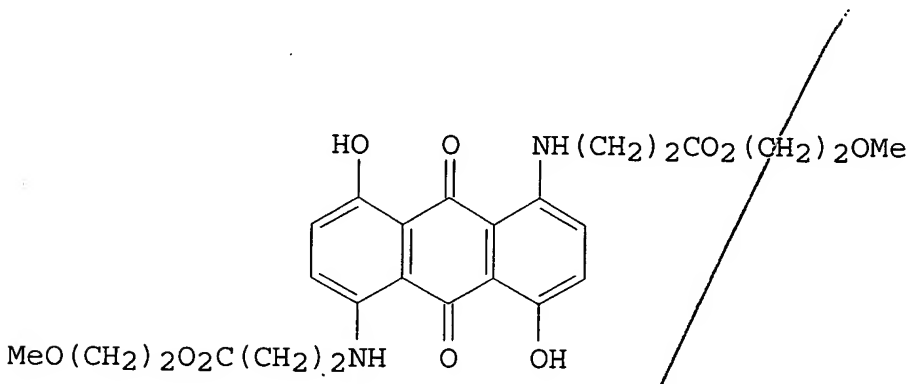
CRN 14808-79-8
CMF O4 S



IT **73419-47-3 73419-48-4 73419-49-5 73419-53-1**
(electrochromic display devices contg.)

L6 ANSWER 37 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1980:60263 Document No. 92:60263 Process for preparing fast dyeings and prints on cellulosic fiber materials and mixtures thereof with synthetic fibers. Reinhardt, Friedrich (Hoechst A.-G., Fed. Rep. Ger.). Brit. UK Pat. Appl. GB 2011483 19790711, 6 pp. (English). CODEN: BAXXDU. APPLICATION: GB 1978-49875 19781222.

GI



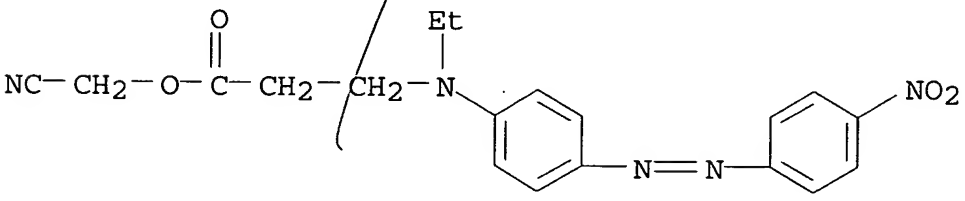
I

AB The title process involves contacting the textiles with an aq. compn. contg. a disperse dye contg. .gtoreq.1 carboxylate group and fixing the color by steaming and/or dry heat in the presence of a compn. contg. .gtoreq.1 aliph. OH and/or NH2 group. Thus, a dispersion of 80 g disperse dye (I) [68479-79-8] in 10 g 32.5% aq. NaOH and 150 g water was added to 5% aq. locust bean flour carboxymethyl ether 50, HOCH2(CH2CHOH)2Me [7327-66-4] 50, di-Et tartrate 120, and water 90 g and the paste was printed onto cotton fabric, treated 8 min at 170.degree. with superheated steam, rinsed, treated 10 min at 95.degree. with 1 g/L nonylphenol polyglycol ether, rinsed, and dried giving a fast blue print.

IT **72595-16-5**
(dye, fixing of, to cellulosic textiles, by hexanetriol)

RN 72595-16-5 ZCAPLUS

CN .beta.-Alanine, N-ethyl-N-[4-[(4-nitrophenyl)azo]phenyl]-, cyanomethyl ester (9CI) (CA INDEX NAME)



IT **72595-16-5**
(dye, fixing of, to cellulosic textiles, by hexanetriol)

L6 ANSWER 38 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

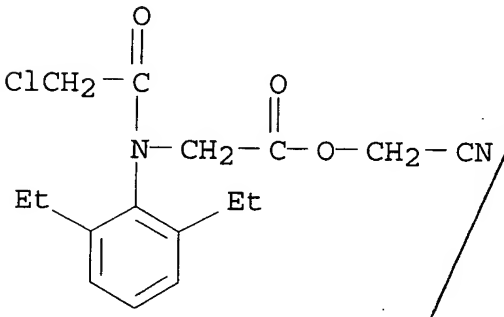
1976:488409 Document No. 85:88409 Structure-activity study of herbicidal N-chloroacetyl-N-phenylglycine esters. Fujinami, Akira; Satomi, Takeo; Mine, Akihiko; Fujita, Toshio (Pestic. Div., Sumitomo Chem. Co., Ltd., Takarazuka, Japan). Pesticide Biochemistry and Physiology, 6(3), 287-95 (English) 1976. CODEN: PCBPBS. ISSN: 0048-3575.

AB N-Chloroacetyl-N-phenylglycine esters exerted various degrees of growth inhibiting activity against young shoots of annual grasses. The activity against the rice plant and barnyardgrass was detd. for 58 derivs. where either the arom. substituent or ester moiety was modified. The structure-activity relationships were analyzed using physicochem. parameters of the mol. such as log P, .sigma., and Es, and regression anal. By comparing the correlations derived for the rice plant and barnyardgrass, the selectively in herbicidal activity was discussed; in general, ortho-substituted compds., esp. double ortho-substituted compds., e.g. Et N-chloroacetyl-N-(2-ethyl-6-methylphenyl)glycinate [38727-58-1], were the most active.

IT **60145-96-2P 60145-98-4P**
(prepn. and herbicidal activity of)

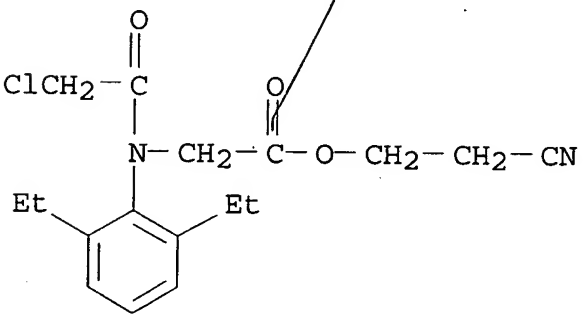
RN 60145-96-2 ZCAPLUS

CN Glycine, N-(chloroacetyl)-N-(2,6-diethylphenyl)-, cyanomethyl ester (9CI) (CA INDEX NAME)



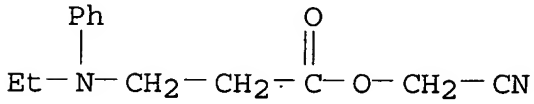
RN 60145-98-4 ZCAPLUS

CN Glycine, N-(chloroacetyl)-N-(2,6-diethylphenyl)-, 2-cyanoethyl ester (9CI) (CA INDEX NAME)

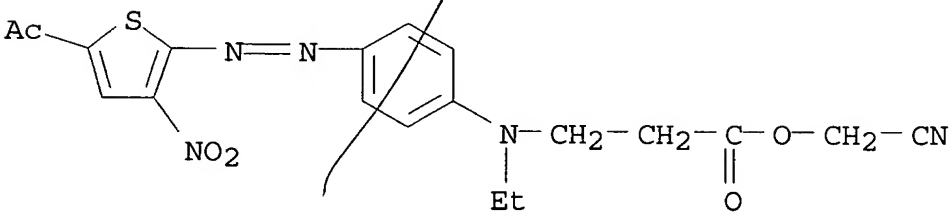


IT **60145-96-2P 60145-98-4P**
(prepn. and herbicidal activity of)

L6 ANSWER 39 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1974:493024 Document No. 81:93024 Disperse monoazo dyes. Costello, Alan T.; Smith, Peter (Imperial Chemical Industries Ltd.). Brit. GB 1351381 19740424, 5 pp. (English). CODEN: BRXXAA. APPLICATION: GB 1971-1216 19710111.
AB 2-Amino-3-nitro-k-acetylthiophene [1009-57-0] was diazo coupled with N-ethyl-N-[.beta.-[(cyanomethoxy)carbonyl]ethyl]aniline [**41314-02-7**] to give azo dye (I) [**41314-03-8**], fast blue on arom. polyester textiles.
IT **41314-02-7**
(coupling of, with diazotized aminothiophene deriv.)
RN 41314-02-7 ZCAPLUS
CN .beta.-Alanine, N-ethyl-N-phenyl-, cyanomethyl ester (9CI) (CA INDEX NAME)



IT **41314-03-8P**
(prepn. of)
RN 41314-03-8 ZCAPLUS
CN .beta.-Alanine, N-[4-[(5-acetyl-3-nitro-2-thienyl)azo]phenyl]-N-ethyl-, cyanomethyl ester (9CI) (CA INDEX NAME)

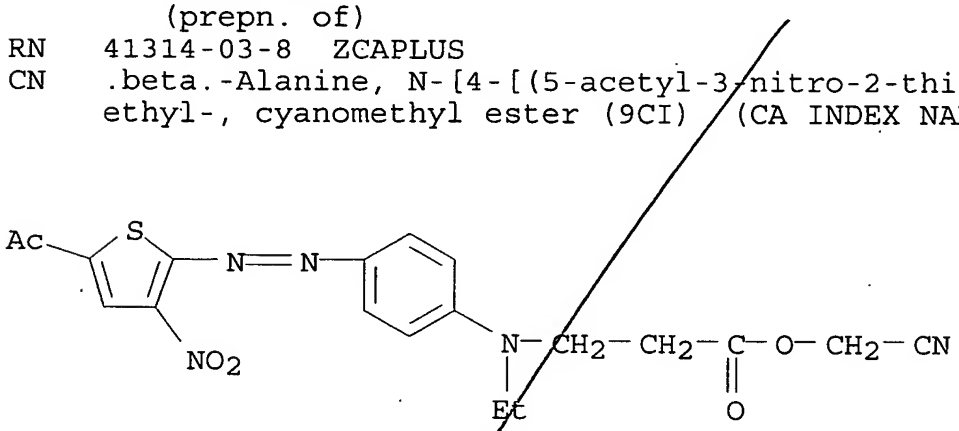


IT **41314-02-7**
(coupling of, with diazotized aminothiophene deriv.)
IT **41314-03-8P**
(prepn. of)

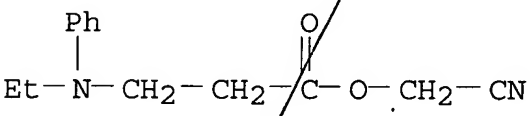
L6 ANSWER 40 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1973:45029 Document No. 78:45029 Disperse azo dyes. Costello, Alan Thomas; Smith, Peter (Imperial Chemical Industries Ltd.). Ger. Offen. DE 2201112 19720803, 13 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1972-2201112 19720111.
AB Two azo dyes [I, R = MeO, R1 = NHAc, R2 = CH2CH2OMe, R3 = H (II);

and R = R1 = H, R2 = CH2CN, R3 = Et], bluish green or blue, resp., on *k*polyester fibers**, were prepd. Thus, coupling diazotized 2-amino-3-nitro-5-acetylthiophene with 2,5-MeO(AcNH)C6H3NHCH2CH2CO2CH2CH2OMe gave azo dye II [36985-60-1]. The other I was prepd. similarly.

IT **41314-03-8P**
(prepn. of)
RN 41314-03-8 ZCAPLUS
CN .beta.-Alanine, N-[4-[(5-acetyl-3-nitro-2-thienyl)azo]phenyl]-N-ethyl-, cyanomethyl ester (9CI) (CA INDEX NAME)



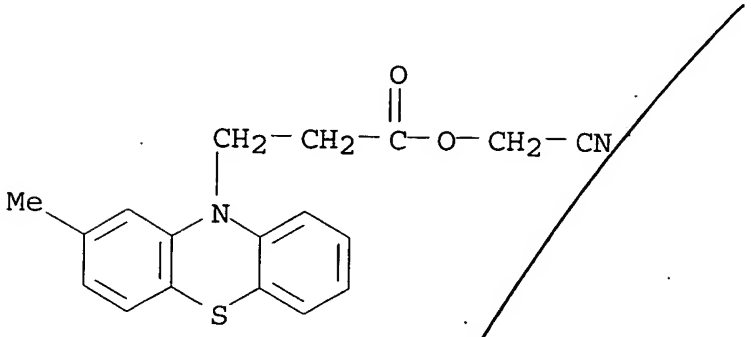
IT **41314-02-7**
(reaction with diazotized nitrothiopheneamine)
RN 41314-02-7 ZCAPLUS
CN .beta.-Alanine, N-ethyl-N-phenyl-, cyanomethyl ester (9CI) (CA INDEX NAME)



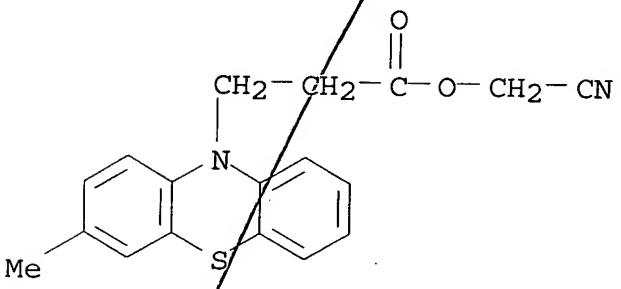
IT **41314-03-8P**
(prepn. of)
IT **41314-02-7**
(reaction with diazotized nitrothiopheneamine)

L6 ANSWER 41 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1971:498520 Document No. 75:98520 Phenothiazine derivatives. 15. Preparation and reactions of phenothiazine-10-propionic acid having a methyl ring-substituent. Braeuniger, H.; Albrecht, B. (Pharm. Chem. Inst., Univ. Rostock, Rostock, Fed. Rep. Ger.). Pharmazie, 26(6), 341-7 (German) 1971. CODEN: PHARAT. ISSN: 0031-7144.
AB Acrylonitrile with 2- and 3-methylphenothiazine gave the 10-(cyanoethyl) derivs., which were hydrolyzed to acids and converted to amides and esters. 3-(2-Methylphenothiazin-10-yl)propionic acid was condensed with sulfanilamide and sulfathiazole by the carbodiimide method to give anilides bearing sulfonamide groups.
IT **33555-51-0P 33566-84-6P**
(prepn. of)

RN 33555-51-0 ZCAPLUS
CN Phenothiazine-10-propionic acid, 2-methyl-, ester with glycolonitrile (8CI) (CA INDEX NAME)



RN 33566-84-6 ZCAPLUS
CN Phenothiazine-10-propionic acid, 3-methyl-, ester with glycolonitrile (8CI) (CA INDEX NAME)



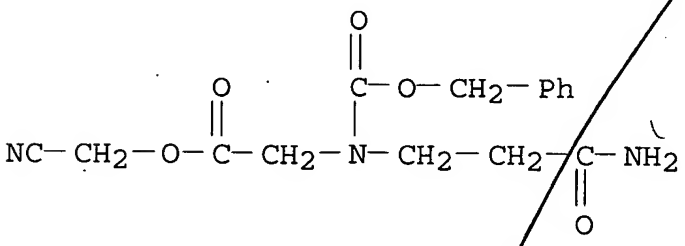
IT **33555-51-0P 33566-84-6P**
(prepn. of)

L6 ANSWER 42 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1971:477262 Document No. 75:77262 Derivatives of N-(2-carboxamidoethyl)glycine for use in peptide synthesis. Stewart, F. H. C. (Div. Protein Chem., CSIRO, Parkville, Australia). Australian Journal of Chemistry, 24(8), 1743-8 (English) 1971. CODEN: AJCHAS. ISSN: 0004-9425.

AB The benzyloxycarbonyl, p-nitrobenzyloxycarbonyl, o-nitrophenylsulfenyl, and p-toluenesulfonyl derivs. of H2NCOCH2-CH2NHCH2CO2H were prepd. The o-nitrophenylsulfenyl and benzyloxycarbonyl derivs. were converted to their p-nitrophenyl esters, the benzyloxycarbonyl to its cyanomethyl ester, and the o-nitrophenylsulfenyl derivs. also to its 2,4,6-trimethylbenzyl ester. Benzyloxycarbonyl - L - alanyl - N - (2 - carboxamidoethyl)glycine 2,4,6-trimethylbenzyl ester and benzyloxycarbonyl-L-alanyl - N - (2 - carboxamidoethyl)glycylglycine 2,4,6 - trimethylbenzyl ester were prepd. by std. coupling methods.

IT **33200-62-3P**

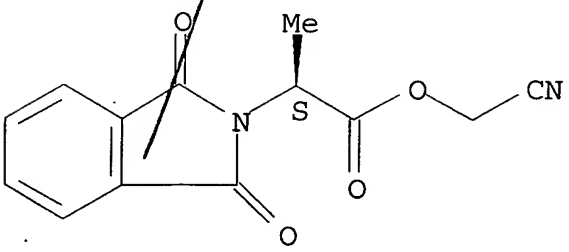
(prepn. of)
RN 33200-62-3 ZCAPLUS
CN Glycine, N-(2-carbamoylethyl)-N-carboxy-, N-benzyl ester, ester with glycolonitrile (8CI) (CA INDEX NAME)



IT **33200-62-3P**
(prepn. of)

L6 ANSWER 43 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1971:449546 Document No. 75:49546 New synthesis of cyanomethyl esters of amino acids and peptides. Leplawy, Miroslaw; Zabrocki, Janusz (Inst. Org. Synth., Tech. Univ. Lodz, Lodz, Pol.). Zeitschrift fuer Chemie, 11(1), 16-17 (German) 1971. CODEN: ZECEAL. ISSN: 0044-2402.
AB PhSO2OCH2CN reacted with salts of N-protected amino acids or peptides, with elimination of PhSO3- to give the corresponding optically pure cyanomethyl esters. Thus, carbobenzoxy-S-benzyl-L-cysteine was converted into carbobenzoxy-S-benzyl-L-cysteine cyanomethyl ester.
IT **32990-92-4P**
(prepn. of)
RN 32990-92-4 ZCAPLUS
CN 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile, L- (8CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **32990-92-4P**
(prepn. of)

L6 ANSWER 44 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1971:406286 Document No. 75:6286 Peptides. IX. Activation and

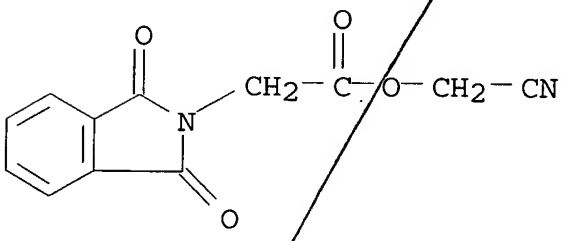
protection of the carboxyl group in the .beta.-dicarbonyl N-protected amino acid series. Balog, Anton; Vargha, Eugen; Breazu, D.; Beu, Lucia; Gonczy, F. (Inst. Chem. Pharm. Res., Cluj, Rom.). Revue Roumaine de Chimie, 15(9), 1391-407 (English) 1970. CODEN: RRCHAX. ISSN: 0035-3930.

AB .beta.-Dicarbonyl N-protected amino acids, QNHCHRCO2- (Q = EtO2CCH:CMe, 2-carboxy-1-cyclopentenyl, etc.), were converted, without racemization, into 14 QNHCHRCO2CH2CN by treatment with p-MeC6H4SO3CH2CN. QNHCHRCO2C6H4NO2-p was prepd. by the dicyclohexylcarbodiimide method. QNHCHRCO2CH2COC6H4X-p (X = H or NO2), and QNHCHRCO2Me were also prepd. The N-protecting groups were removed by 3% alc. HCl. QNHCHRCO2CH2CN or QNHCHRC2O- were converted into the QNHCHRCONHCH2Ph. Dipeptides were prepd. from QNHCHRCO2CH2CN, from H2NCHRCO2CH2CN.HCl with phthalimidoacetyl chloride (Q1CH2COCl) and from QNHCHRCO2Z (Z = dicyclohexylammonium) by the mixed anhydride method. Among 13 dipeptides prepd. were Q1-Gly-Gly-OCH2CN and Q1-Gly-L-Ala-OCH2CN.

IT **3589-47-7P**
(prepn. of)

RN 3589-47-7 ZCAPLUS

CN 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile (7CI, 8CI) (CA INDEX NAME)



IT **3589-47-7P**
(prepn. of)

L6 ANSWER 45 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1969:491273 Document No. 71:91273 Esters of 1-aziridinepropionic acid. Jelinek, Arthur G. (du Pont de Nemours, E. I., and Co.). U.S. US 3457349 19690722, 4 pp. (English). CODEN: USXXAM. APPLICATION: US 1963-324887 19631119.

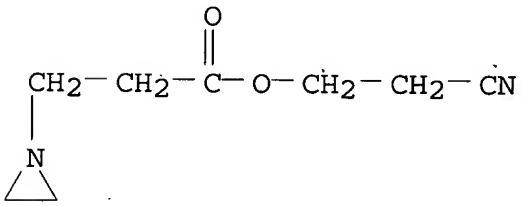
AB The title compds. were prepd. for use as tranquilizers. Thus, 4.3 g. ethylenimine (I) and 3 drops 35% methanolic PhCH2NMe3OH (II) added dropwise at 40.degree. to 15.4 g. F3CCH2O2CCH:CH2, the mixt. heated 1 hr. at 45.degree., and distd. through a 15 in. Vigreux column gave 12.3 g. 1-aziridinepropionic acid, 2,2,2-trifluoroethyl ester, b8 62-3.degree.. Similarly were prepd. the following 1-aziridine-propionic acid esters (ester group and b.p. given): Et2NCH2CH2, b0.cntdot.1 72-3.degree.; C6H11, b2.cntdot.5 102-3.degree.; PhCH2, b0.cntdot.2 98.degree.; MeOCH2CH2, b2.cntdot 82-3.degree.; F2CHCF2CH2, b3.cntdot.0 72-3.degree.; and F3CCF2CH2 b6 60.degree.. NCCH2CH2O2CCH:CH2 (31.2 g.) and 0.5 g. 1,4-C6H4(C

treated dropwise with 10.8 g. I and 0.1 g. tert-BuOK (III), the mixt. heated 3 hrs. at 50.degree., and half stripped at 10 mm. and 50.degree. gave 18.8 g. 1-aziridinepropionic acid 2-cyanoethyl ester. I (6.5 g.), 3 drops II, and 5 drops III added dropwise to 23.6 g. acrylic acid ester with 3-hydroxy-N-methylpiperidine, the mixt. heated 8 hrs. at 55-60.degree., and 15 hrs. at 70-5.degree. and distd. gave 12.7 g. 1-aziridinepropionic acid ester with 3-hydroxy-N-methylpiperidine, b0.cntdot.2 83.degree.. Similarly were prepd. the following 1-aziridinepropionic acid esters (same data given): CF3CF2CF2CH2, b2.cntdot.2 54-5.degree.; Me2NCH2CH2, b0.cntdot.15 59.degree.; and MeSCH2CH2, b0.cntdot.3 76-9.degree.. Pharmaceutical formulations were given.

IT **24116-23-2P**
(prepn. of)

RN 24116-23-2 ZCAPLUS

CN 1-Aziridinepropionic acid, ester with hydracrylonitrile (8CI) (CA INDEX NAME)



IT **24116-23-2P**
(prepn. of)

L6 ANSWER 46 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1968:60522 Document No. 68:60522 Azo dyes. Schefczik, Ernst (Badische Anilin- und Soda-Fabrik A.-G.). Brit. GB 1095950 19671220, 11 pp. (English). CODEN: BRXXAA. PRIORITY: DD 19650821 - 19660625 19660625.

GI For diagram(s), see printed CA Issue.

AB Heat-stable disperse dyes for polyester textiles are made by condensing N-substituted phthalimide-4-carboxylic acid chlorides (I) with 4-H2NC6H4N:NR to form dyes with the general structure II, in which R is alkyl or substituted alkyl, and R' is the residue of a coupling component. Thus, a mixt. of I (R = Bu) 29, PhMe 300, and 4-H2NC6H4N:NC6H4NO2-4 24.2 parts is refluxed for 2 hrs., filtered at 60-70.degree., washed with MeOH, and dried to give orange-brown II (R = Bu, R' = 4-O2NC6H4), m. 227-8.degree., which dyes polyester fibers orange shades. Similarly, other II are prepd. (R, R', m.p., and shade given): MeO(CH2)3, 4-O2NC6H4, 246.degree., -; Et, 5,2-Me(HO)C6H3 (Q), 269-70.degree. yellow; Pr, Q, 240-1.degree., yellow; Bu, Q, 229.degree., yellow; iso-Bu, Q 254-5.degree., yellow, isoamyl, Q, 230-1.degree., yellow; BuCHEtCH2, Q, 224-5.degree., yellow; n-C18H37, Q, 192-3.degree., yellow; ClCH2CH2, Q, 229-30.degree., yellow; EtO2CCH2, Q, 228-9.degree., yellow;

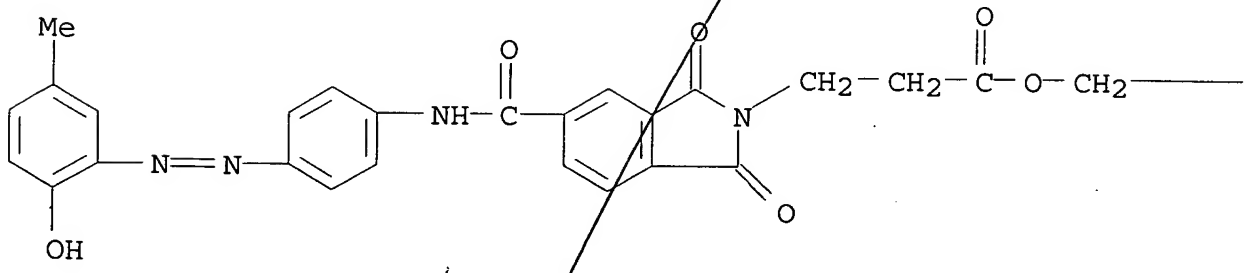
EtO(CH2)3, Q, 197-8.degree., yellow; PhCH2CH2, Q, 273-4.degree., yellow; MeO(CH2)3, Q, 220.degree., yellow; Pr, 3-methyl-1-phenyl-5-pyrazolon-4-yl (Y), 263.degree. (decomp.), yellow; Bu, Y, 270.degree., yellow; iso-Bu, Y, 275.degree., yellow; isoamyl, Y, 249-50.degree., yellow; MeO(CH2)3, Y, 242.degree., yellow; EtO(CH2)3, Y, 231.degree., yellow; EtO2CCH2, Y, 283.degree., yellow; BuO2CCH2CH2, Y, 310.degree., yellow; PhCH2CH2, Y, 266-7.degree., yellow; MeO(CH2)3, 2,1-HOC10H6 (Z), 224-6.degree., scarlet-red; Pr, Z, 289-90.degree., red; Bu, Z, 248-9.degree., red; isoamyl, Z, 255-6.degree., red; EtO(CH2)3, Z, 224-5.degree., red; BuO2CCH2CH2, Z, 241-2.degree., red. A soln. of 40 parts II (R = H, R' = Q) (m. 349.degree.) in 200 parts HCONMe2 is heated to 80.degree., treated with hydroquinone 0.1, CH2:CHCO2Me 50, and K2CO3 1.5 parts, stirred for 12 hrs. at 80.degree., and poured into 100 vols. MeOH to give II (R = MeO2CCH2CH2, R' = Q), m. 230.degree., which dyes polyester bright yellow. Similarly prepd. are yellow II (R = CH2CH2CO2R", R' = Q) (R" and m.p. given): CH2CH2Cl, 191-2.degree.; Et, 215-16.degree.; Bu, 194-5.degree.; iso-Bu, 200-1.degree.; Me3C, 219-20.degree.; CH2CH2OH, 187-8.degree.; CH2CH2OMe, 183-4.degree.; CH2CH2OBu, 164-5.degree.; (CH2)4OH, 158-9.degree.; CH2CHMeBu, 173-4.degree.; CH2CH2Ph, 202-3.degree.; CH2CH2OPh, 213-14.degree.; CH2CH(OH)CH2Cl, 245-51.degree.; (CH2)4Cl, 175-6.degree.; CH2CH2CN, 202-3.degree.; CH2CH2NEt2, 255-60.degree.. Similarly are prepd. II (R = CH2CHMeCO2Me, R' = Q), m. 225-6.degree. (AcOH), and red II (R = CH2CH2CO2Bu, R' = Z), m. 241-2.degree. (o-C6H4Cl2).

IT **17864-42-5P**
(prepn. of)

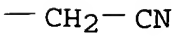
RN 17864-42-5 ZCAPLUS

CN 2-Isoindolinepropionic acid, 5-[[p-[(6-hydroxy-m-tolyl)azo]phenyl]carbamoyl]-1,3-dioxo-, ester with hydracrylonitrile (8CI) (CA INDEX NAME)

PAGE 1-A

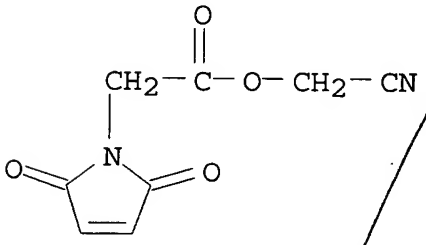


PAGE 1-B



IT **17864-42-5P**
(prepn. of)

L6 ANSWER 47 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1967:65813 Document No. 66:65813 N-(.beta.-Carboxyacryloyl) and N-maleoyl compounds of amino acids. Helferich, Burckhardt; Wesemann, Wolfgang (Univ. Bonn, Bonn, Fed. Rep. Ger.). Chemische Berichte, 100(2), 421-4 (German) 1967. CODEN: CHBEAM. ISSN: 0009-2940.
GI For diagram(s), see printed CA Issue.
AB Several new N-(.beta.-carboxyacryloyl)amino acid esters (I) were prepd. by condensation of maleic anhydride with amino acid esters. The reaction of I with CH2N2 yielded the corresponding pyrazoline (II). The N-(.beta.-carboxyacryloyl)amino acid or I yielded with ClCH2CN N-maleoylamino acids.
IT **14109-69-4P**
(prepn. of)
RN 14109-69-4 ZCAPLUS
CN 1H-Pyrrole-1-acetic acid, 2,5-dihydro-2,5-dioxo-, cyanomethyl ester (9CI) (CA INDEX NAME)



IT **14109-69-4P**
(prepn. of)

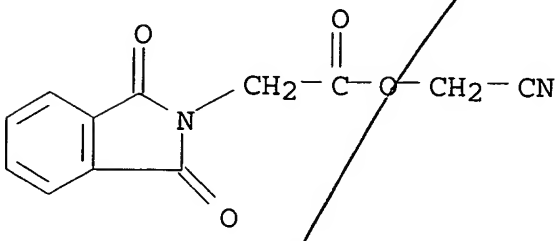
L6 ANSWER 48 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1966:27879 Document No. 64:27879 Original Reference No. 64:5201d-h,5202a Glycolamide esters of N-acylamino acids and peptides. Stewart, F. H. C. (CSIRO Wool Res. Lab., Parkville). Australian Journal of Chemistry, 18(7), 1089-94 (English) 1965. CODEN: AJCHAS. ISSN: 0004-9425.
AB Glycolamide esters of N-acetylamino acids were prepd. by refluxing a soln. of 20 millimoles N-acylamino acids, 1.7 g. chloroacetamide, and 2.8 ml. triethylamine in 20 ml. acetonitrile for 6 hrs. The solns. were evapd. to dryness in vacuo and dild. with satd. NaHCO3 soln. The less sol. glycolamide esters were collected, washed, and recrystd. The more water-sol. compds. were extd. with ethyl acetate after the addn. of sodium chloride, and the dried ext. evapd. to give the following glycolamide esters (% yield, m.p. given): benzoylglycine (I), 51, 124-5.degree.; benzyloxycarbonylglycine (II), 57, 107-8.degree.; phthaloylglycine (III), 47, 170-1.degree.;

triphenylmethylglycine, 46, 170-1.degree.; benzyloxycarbonyl L-alanine, 36, 74-5.degree.; benzyloxycarbonyl-.beta.-alanine, 51,102.5-3.5.degree.; benzyloxycarbonyl L-phenylalanine, 53, 88.5-9.5.degree.. Benzoylglycylglycine glycolamide ester was prepd. from I by the same method as used to prep. I, yield 50%, m. 174-5.degree.. Glycine glycolamide ester hydrobromide (IV) was prepd. by treating 5 g. II with 25 ml. 4N HBr 1 hr. at room temp. Addn. of ether pptd. the hydrobromide which was washed with ethanol and recrystd. (methanolether), yield 89%, m. 192-3.degree. (decompn.). A soln. of 426 mg. IV, 0.4 ml. water, 0.28 ml. triethylamine, 10 ml. acetonitrile, 932 mg. N-benzyloxycarbonyl-S-benzyl-L-cysteine p-nitrophenyl ester and 272 mg. imidazole was allowed to stand at room temp. 2 hrs. after which the solvent was removed in vacuo below 40.degree., the residue taken up in ethyl acetate, washed with water, dried, and evapd. to give N-benzyloxycarbonyl-S-benzyl-L-cysteinyl glycine glycolamide ester (V), yield 85%, m. 145-6.degree. (EtOAc-EtOH). N-Benzyloxycarbonyl-L-alanylglycine glycolamide (VI), N-benzyloxycarbonyl-L-asparaginylglycine glycolamide ester (VII), and N-benzyloxycarbonyl-.gamma.-benzyl-L-glutamylglycine glycolamide ester (VIII) were prepd. by the same method as V, except that for VI N-benzyloxycarbonyl-L-alanine p-nitrophenyl ester was used and recrystd. from ethanol-cyclohexane; for VII Nbenzyloxycarbonyl-L-asparagine p-nitrophenyl ester was used, HCONMe2 replaced acetonitrile and the reaction mixt. was dild. with water and kept overnight at 0.degree.; and for VIII N-benzyloxycarbonyl-.gamma.-benzyl-L-glutamate p-nitrophenyl ester was used. Yields in % and m.ps. for VI, VII, and VIII are: 51, 159-60.degree.; 72, 198.5-200.degree.; and 85, 100-2.degree.. The glycolamide ester (1.0 millimole) was dehydrated in 1.5 ml. dry pyridine, adding 0.1 ml. phosphorus oxychloride at -5.degree. dropwise with stirring. After 20 min. the pyridine was removed in vacuo at 40.degree., the residue dild. with water, and neutralized by HCl. The mixt. was extd. with chloroform and the ext. washed with dil. HCl, water, and dried. Evapn. of the solvent gave crude cyanomethyl ester, which was recrystd. (charcoal). I gave 52% benzoylglycine cyanomethyl ester (IX), m. 100-1.degree.. II gave 85% N-benzyloxycarbonylglycine cyanomethyl ester, m. 57-8.degree.. III gave N-phthaloylglycine cyanomethyl ester, m. 136-7.degree.. V gave 64% N-benzyloxycarbonyl-S-benzyl-L-cysteinylglycine cyanomethyl ester, m. 94.5-5.5.degree.. The acylating abilities of the glycolamide esters were investigated by comparing the behavior of I and IX in the presence of benzylamine in HCONMe2 soln. at room temp. IX acylated the amine rapidly and a 77% yield of N-benzoylglycinebenzylamine was obtained after 2 hrs. In the same period I gave 2-3% of the benzylamide but the yield increased to 23% after 18 hrs. The possible applications of glycolamide derivs. in peptide synthesis is considered.

IT **3589-47-7**, 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile
(prepn. of)

RN 3589-47-7 ZCAPLUS

CN 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile (7CI, 8CI) (CA INDEX NAME)



IT **3589-47-7**, 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile
(prepn. of)

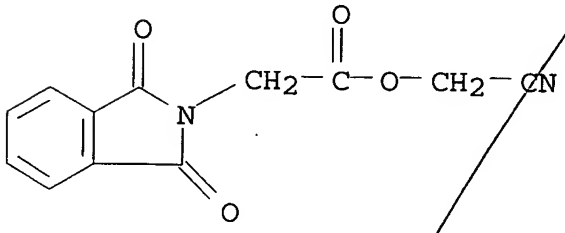
L6 ANSWER 49 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1965:489245 Document No. 63:89245 Original Reference No. 63:16452f-h,16453a-b Nitrile group in peptide chemistry. VI. Preparation of optically active N-protected amino nitriles from N-protected amino acids. Liberek, Bogdan; Nowicka, Aldona; Szrek, Jerzy (Wyzsza Szkola Pedagogiczna, Gdansk, Pol.). Roczniki Chemii, 39(3), 369-74 (English) 1965. CODEN: ROCHAC. ISSN: 0035-7677.
GI For diagram(s), see printed CA Issue.
AB cf. CA 60, 10781d. The title compds. were prepd. by dehydration of the amides of N-protected amino acids with POCl3 in pyridine. The amino group was blocked either with the benzyloxycarbonyl group (Z) or with the phthaloyl group (Pht). Thus, a soln. of 1.38 g. L-PhCH2SCH2CH(NHZ)CONH2 in 5.5 ml. dry pyridine was treated dropwise at -5.degree. with POCl3 in 1 ml. CH2Cl2 and kept 30 min. in a cooling bath to give 1.2 g. L-PhCH2SCH2CH(NHZ)CN, m. 68-70.degree. (Me2CO-petr. ether or C6H6-petr. ether), [.alpha.]205800 -30.4.degree. (c 2.4, Me2CO). Similarly prepd. were the following (compd., m.p., [.alpha.]205800, and % yield given): ZNHCH2CN, 61-2.degree., -, 88; L-Me2CHCH2CH(NHZ)CN, -, -, 93; L-NCCH2CH(NHZ)CN (I), 111-12.degree., -, 89; L-II, 131-2.degree., -78.8.degree. (c 4.0, Me2CO), 87; DL-MeCH(NPht)CN, 139-40.degree., -, 83; DL-PhCH2CH(NPht)CN, 135-6.degree., -, 86; L-PhCH2CH(NPht)CN, 150-2.degree., -101.degree. (c 1.0, CHCl3), 84; PhtNCH2CH2CN, 153-4.degree., -, 73; DL-Me2CHCH(NPht)CN, 67-9.degree., -, 89; PhtNCH2CO2CH2CN, 130-2.degree., -, 86; DL-MeCH(NPht)CO2CH2CN, 90-1.degree., -, 75; DL-PhCH2(NPht)CO2CH2CN, 116-17.degree., -, 84. I was also prepd. in 82% yield from H2NOCCH2CH(NHZ)CONH2 as described above, using warm dimethylformamide as a cosolvent and by repeating the dehydration with POCl3 twice. A warm soln. of 817 mg. PhtNCH2CONH2 in 6 ml. pyridine was treated at 60.degree. with 1 ml. POCl3, refluxed 0.5 min., cooled, and dild. with icewater to ppt. 477 mg. PhtNCH2CN, m. 127-9.degree. (alc.). A soln. of 5 g. Me2CHCH(NPht)COOH and 3 ml. NEt3 in 30 ml. dioxane was treated at -5.degree. with 2 ml. ClCO2Et, kept in a cooling bath for 15 min., then NH3 in CHCl3 added, the whole left for 45 min. at 0.degree.,

dild. with water and acidified to pH 5. Evapn. of the org. solvent in vacuo gave 3.59 g. Me2CHCH(NPht)CO2NH2, m. 178-9.degree. (PrOH).

IT **3589-47-7**, 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile **95708-10-4**, 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile (prepn. of)

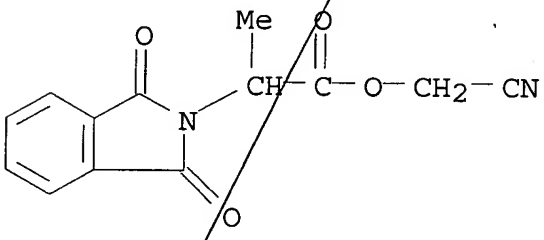
RN 3589-47-7 ZCAPLUS

CN 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile (7CI, 8CI) (CA INDEX NAME)



RN 95708-10-4 ZCAPLUS

CN 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile (7CI) (CA INDEX NAME)



IT **3589-47-7**, 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile **95708-10-4**, 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile (prepn. of)

L6 ANSWER 50 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1965:472417 Document No. 63:72417 Original Reference No. 63:13405f-h,13406a New way for the formation of peptide bonds without racemization. Taschner, E.; Rzeszotarska, B.; Kuziel, A. (Inst. Technol., Gdansk, Pol.). Acta Chem. Acad. Sci. Hung., 44(1-2), 67-70 (English) 1965.

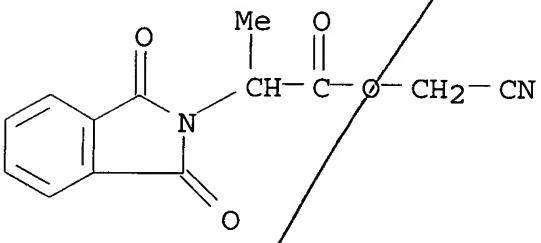
AB (Z=benzyloxycarbonyl, PHT=phthaloyl throughout this abstr.) For = formyl. Esterification of N-protected amino acids with BrCH2CN (I) in EtOAc contg. NEt3 for 8 hrs. at 20.degree. (Method A) gave almost as high yields as were obtainable with ClCH2CN (II) for 3 hrs. at 65.degree. (Method B) [N-protected amino acid, m.p. cyanomethyl ester if new, and % yields by Methods A and B given]: Z-DL-Phe, 97.5-9.degree., 70, 83; Z-Gly, -, 52, 82; Z-DL-Ala, 47.5-9.degree.,

56, 70; Z-Gly-DL-Phe, oil, 53.6, -; For-Phe, -, 54, 50; and PHT-DL-Ala, 87-8.degree., 63.5, -. Esterification with II at 20.degree. gave poor yields. The crude ester of For-L-Phe prepd. by either Method A or B was coupled with the tert-Bu ester of L-valine, and the cyanomethyl ester of trifluoroacetyl-L-phenylalanine with the tert-Bu ester of L-phenylalanine by heating in EtOAc 1 hr. at 60.degree.; the protecting groups were removed from the resulting dipeptides (tert-Bu group with F3CCO2H; For with 2N HCl in dioxane; F3CC(:O) with N NaOH), and the extent of epimerization of the peptides detd. The cyanomethyl esters prepd. using I were less racemized than those prepd. using II. The cyanomethyl ester of For-L-phenylalanine obtained using I was coupled in dry HOAc at room temp. in the presence of HCO2H or AcOH with the tert-Bu ester of L-valine; the cyanomethyl ester of trifluoroacetyl-L-phenylalanine similarly obtained was similarly coupled with the tert-Bu ester of L-phenylalanine. Racemization was undetectable in the reaction. Further coupling expts, confirmed that eyanomethyl esters k obtained with II were strongly racemized in comparison to those obtained with I; this racemization occurred during the formation of the cyanomethyl esters. The rate of aminolysis of cyanomethyl esters can be accelerated with molar amts. of acids so that the reaction proceeds at room temp. and consequently without racemization.

IT **95708-10-4**, 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile
(prepn. of)

RN 95708-10-4 ZCAPLUS

CN 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile (7CI) (CA INDEX NAME)



IT **95708-10-4**, 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile
(prepn. of)

L6 ANSWER 51 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1965:431979 Document No. 63:31979 Original Reference No. 63:5731g-h,5732g-h,5733a Mechanism of trypsin-catalyzed ester hydrolysis. Model experiments on substrates. Gemperli, Margrit; Hofmann, Werner; Rottenberg, Max (Univ. Bern, Switz.). Helvetica Chimica Acta, 48(92), 939-45 (German) 1965. CODEN: HCACAV. ISSN: 0018-019X.

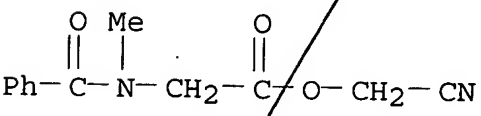
AB Contrary to the rules of inductive effects, tosyl-L-arginine Et ester (I) hydrolyzed more slowly than the Bz deriv. (II), at both

alk. and neutral pH. The tosylglycine (III) and tosylsarcosine Et ester (IV) behaved normally, III being more rapidly hydrolyzed than IV. II.HCl m. 121-3.degree.; Me ester analog (V) of I.HCl m. 136-9.degree.. I.HCl, prepd. from V with EtOH satd. with HCl 24 hrs. at 20.degree., m. 109-12.degree., [.alpha.]23D -10.3.degree. (c 3.7, H2O). V treated with 12 N HCl 24 hrs. at 20.degree. and then with concd. HCl 16 hrs. at 20.degree. gave tosyl-L-arginine-HCl, m. 184-7.degree., [.alpha.]20D -6.12.degree. (c 0.82, N HCl). N-Methylhippuric acid (19.3 g.), 150 millimoles Et3N, and 10 ml. ClCH2CN in 100 ml. EtOAc refluxed 3 hrs. gave 11 g. N-methylhippuric acid cyanomethyl ester, m. 61-3.degree., which in 100 ml. Me2NCH2-CH2OH (VI) was shaken 15 min. with the residue of a concd. soln. of 1 g. KCN and 50 ml. VI in 75 ml. PhMe, the mixt. kept 2 days at 20.degree. under exclusion of light, moisture and CO2, then evapd., the residual oil dissolved in EtOAc, the washed (KHCO3, H2O) and dried soln. evapd., and the residue treated 5 days at 20.degree. with 10 ml. MeI in 250 ml. EtOAc, giving 74% N-methylhippuric acid choline ester iodide, m. 125-7.degree.. III, m. 141-3.degree., stirred 6 days with 1 g. p-MeC6H4SO3H.H2O in 43 ml. MeOH gave 78% III Me ester (VII), m. 89-91.degree.. VII (12 g.), 50 ml. VI, and 1 g. KCN gave 74% III choline ester iodide, m. 156-9.degree.; chloride m. 191-2.degree.. N-Tosylsarcosine m. 143-5.degree., ClCH2CN, and Et3N gave tosylsarcosine cyanomethyl ester, m. 60-3.degree., which was converted into 86% tosylsarcosine choline ester iodide, m. 142-4.degree.. Me p-nitrohippurate, m. 122-3.degree., and VI in the presence of KCN gave p-nitrohippurylcholine-HCl, m. 189-92.degree.. The alk. hydrolysis of these esters was followed by potentiometric titration at const. pH and 25.degree., the neutral hydrolysis at 100.degree. by a quant. extn. method. The results showed that tosyl esters are better substrates for trypsin than the corresponding Bz derivs. It is concluded that the mechanism of trypsin-catalyzed ester hydrolysis is fundamentally different from both neutral and alk. hydrolysis.

IT **2645-04-7**, Hippuric acid, N-methyl-, ester with glycolonitrile
(prepn. of)

RN 2645-04-7 ZCAPLUS

CN Hippuric acid, N-methyl-, ester with hydroxyacetonitrile (8CI) (CA INDEX NAME)



IT **2645-04-7**, Hippuric acid, N-methyl-, ester with glycolonitrile
(prepn. of)

L6 ANSWER 52 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1964:476884 Document No. 61:76884 Original Reference No.

61:13415a-h,13416a-d Synthesis of depsipeptides. Losse, Guenter; Bachmann, Guenter (Univ. Halle, Germany). Ber., 97(9), 2671-80 (Unavailable) 1964.

AB A series of depsipeptide sequences and new depsipeptide derivs. were prepd. from valine (I), MeCH(OH)CO2H (II), N-methylalanine (III), and iso-PrCH(OH)CO2H (IV) using the N-phthaloyl, O-PhCH2O2C, C-PhCH2, and C-NCCH2 groups as protective groups and the acid chloride method as coupling reaction. Several routes for the synthesis of higher regular or irregular depsipeptides from the partial sequences are demonstrated. DL-II, b12 122-3.degree., was resolved with (-)-MePhCHNH2, b14 77.degree., n22D 0.9500, [.alpha.]20D -40.5.degree. (neat), via the L-lactate, [.alpha.]22D -8.6.degree. (c 3.0, H2O), to give L-II which was converted into the Li salt (V), [.alpha.]22D -14.0.degree. (c 3.0, H2O). V (10.8 g.) in 60 cc. dry PhCH2OH satd. with dry HCl yielded 9.5 g. PhCH2 ester (VI) of L-II, b12 138-9.degree., n20D 1.5148, [.alpha.]20D -15.0.degree. (c 2.8, EtOH). L-I (11.7 g.) in 196 cc. N H2SO4 treated dropwise during 1.5 hrs. at 0.degree. with a concd. aq. soln. of 13.8 g. NaNO2, stirred 3 hrs. at 0.degree., kept 8 hrs. at 20.degree. and heated 15 min. at 50-60.degree. gave 9.1 g. L-IV, m. 63-5.degree. (sublimed in vacuo), [.alpha.]20D 19.1.degree. (c 1.0, CHCl3). L-IV (5.9 g.) in 45 cc. dry PhCH2OH with HCl yielded 7.6 g. the PhCH2 ester, b10 134-6.degree., n20D 1.5057, [.alpha.]20D -16.3.degree. (c 2.1, EtOH). DL-IV (11.8 g.)in 100 cc. AcOEt and 14 cc. Et3N treated at 70.degree. with 9.5 cc. ClCH2CN gave 9.6 g. the NCCH2 ester (VII), b2 101-4.degree.. DL-IV (5.9 g.) and 10.3 cc. PhSH in 60 cc. dry tetrahydrofuran (THF) treated at -10.degree. dropwise with 10.3 g. dicyclohexylcarbodiimide (DCC) in 30 cc. THF and kept 10 hrs. at room temp. yielded 7.3 g. oily PhS ester (VIII), n20D 1.5550. The appropriate .alpha.-hydroxy acid (0.1 mole), 0.4 mole Et3N, and 50 cc. CHCl3 treated dropwise at -5.degree. with 0.15 mole ClCO2CH2Ph, kept 1 hr. at -5.degree. and 8 hrs. at 20.degree., and worked up yielded 40% carbobenzyloxy deriv. which was recrystd. from (CH2Cl)2. In this manner were prepd. MeCH(OCO2CH2PH)CO2H (IX),. m. 84.degree., and iso-PrCH(OCO2CH2Ph)CO2H (X) m. 86-7.degree. IX (0.02 mole), 0.02 mole PhSH, and 0.02 mole DCC at -10.degree. in 15 cc. THF yielded the PhS ester, m. 45.degree., in 80% yield. Similarly was prepd. the PhS ester of X, m. 31-2.degree.. III (10.2 g.) in 25 cc. 4N NaOH treated at -15.degree. with stirring simultaneously with 20 g. ClCO2CH2Ph and 50 cc. 2N NaOH and stirred 1 hr. at room temp. yielded 18 g. N-PhCH2O2C deriv. (XI), m. 64.degree.. XI (23.6 g.) and 10.1 g. Et3N in 50 cc. dry AcOEt refluxed 3 hrs. with 11.4 g. ClCH2CN gave 25 g. NCCH2 ester (XII) of XI, n20D 1.5003. XII (15 g.) in 200 cc. MeOH hydrogenated 3 hrs. over 0.3 g. Pd-C yielded N-methyl-DL-alanine NCCH2 ester (XIII). N-Phthaloyl-L-valine (20 millimoles), m. 116-17.degree., [.alpha.]20D -69.8.degree. (c 2.7, EtOH), in 60 cc. dry C6H6 treated at 0.degree. with 6.3 g. PCl5 and stirred 4-5 hrs. at 0.degree. yielded 86-92% N-phthaloyl-L-valyl chloride, m. 120-1.degree. (Et2O-petr. ether). Similarly was prepd. the D-isomer, m. 119.degree. (Et2O-petr. ether). The appropriate N-phthaloylamino acid chloride (0.05 mole) in 60-80 cc. dry Et2O

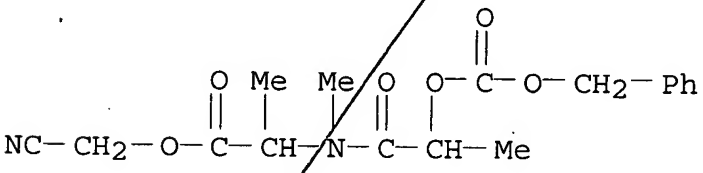
treated dropwise with stirring at -10.degree. with 0.05 mole hydroxy acid benzyl ester and 12 cc. C5H5N in a little Et2O (,with optically active compds. only 4 cc. C5H5N was used) and kept 2 hrs. at 0.degree. and 3 hrs. at room temp. yielded the following compds. (% yield and n20D given): benzyl N-phthaloyl-DL-valyl-DL-lactate (XIV), 86, 1.5462; benzyl N-phthaloyl-D-valyl-L-lactate (XV), 71, - [[.alpha.]20D 21.4.degree. (c 2.1, EtOH)]; henzyl N-phthaloyl-L-valyl-L-lactate (XVI), 91, - [[.alpha.]20D -42.3.degree. (c 2.7, EtOH)]; benzyl N-phthaloyl-DL-lactate, 75, 1.5413; benzyl N-phthaloyl-DL-isoleucyl-DL-lactate, 83, 1.5432; benzyl N-phthaloyl-DL-valyl-DL-.alpha.-hydroxyisovalerate (XVII), 78, 1.5372. The appropriate N-phthaloylaminoacylhydroxy acid PhCH2 ester (10 millimoles) in 120 cc. abs. MeOH hydrogenated 3-8 hrs. over 0.5 g. Pd-C at room temp. and 50 cm. H2O pressure yielded the corresponding free acid. In this manner were prepd. the following compds. (% yield and starting material given): N-phthaloyl-DL-valyl-DL-lactic acid, 70 (dicyclohexylamine salt m. 164-6.degree.) XIV; N-phthaloyl-D-valyl-L-lactic acid, 66 [[.alpha.]20D 29.7.degree. (c 2.8, EtOH)], XV; N-phthaloyl-L-valyl-L-lactic acid, 61 [[.alpha.]20D -43.6.degree. (c 3.0, EtOH)], XVI; N-phthaloyl-DL-valyl-DL-.alpha.-hydroxyisovaleric acid, 70 (amorphous glass) (dicyclohexylamine salt m. 187-9.degree.), XVII. The appropriate N-phthaloylvalylhydroxy acid (10 millimoles) treated at 0.degree. with 2.5 g. PCl5 in 40 cc. abs. C6H6, and the resulting viscous oily acid chloride dissolved in 30 cc. Et2O and treated dropwise at -10.degree. with 2.7 g. valine benzyl ester and 2.42 cc. C5H5N in 15 cc. Et2O and kept 2 hrs. at 0.degree. and 3 hrs. at room temp. yielded the benzyl esters (XVIII) of the following acids (% yield and n20D given): phthaloyl-DL-valyl-DL-lactyl-DL-valine (XIX), 86.5, 1.5407; N-phthaloyl-L-valyl-L-lactyl-L-valine (XX), 76.5, 1.5417 [[.alpha.]20D -27.9.degree. (c 3.0, EtOH)]; N-phthaloyl-DL-valyl-DL-.alpha.-hydroxyisovaleryl-DL-valine (XXI), 79, 1.5374. The appropriate XVIII (5 millimoles) in 60 cc. abs. MeOH hydrogenated at room temp. and 50 cm. H2O pressure over Pd-C yielded the corresponding acid (% yield given): XIX, 90 (amorphous); XX, 69 (amorphous glass) [[.alpha.]20D -3.2.degree. (.c 2.8, EtOH)]; XXI, 83 (m. 199-200.degree.); (dicyclohexylamine salt m. 182-5.degree.). XIX (1.25 g.) treated with 0.83 g. PCl5 in 20 cc. dry C6H6, and the resulting acid chloride dissolved in 15 cc. dry Et2O, cooled to -10.degree., treated dropwise with 0.54 g. DL-VI and 0.24 cc. C5H5N in 5 cc. Et2O, and kept 2 hrs. at 0.degree. and 20 hrs. at room temp. yielded 30% viscous, oily N-phthaloyl-DL-valyl-DL-lactyl-DL-valyl-DL-lactic acid PhCH2 ester (XXII), n20D 1.5277. N-Phthaloyl-DL-valyl-DL-lactic acid (1.6 g.) treated with 1.25 cc. PCl5, and the acid chloride treated in 25 cc. Et2O at -10.degree. with 1.4 g. benzyl DL-valyl-DL-lactate (XXIII) and 1.21 cc. C5H5N in 10 cc. Et2O yielded 55.5% XXII, n20D 1.5293. The appropriate phthaloyl depsipeptide benzyl ester (10 millimoles), 0.32 g. N2H4, and 55 cc. abs. EtOH refluxed 50 min. gave the following depsipeptide benzyl esters (% yield and m.p. or n20D given): XXIII, 40.5, (XXIII.HCl m. 180-3.degree.); benzyl DL-valyl-.alpha.-hydroxyisovalerate, 44, 1.4923; DL-valyl-DL-lactyl-DL-valine benzyl

ester, 57, 1.5133. DL-IV (2.95 g.) and 4.14 g. DL-valine henzyl ester (XXIV) in 70 cc. THF treated at -10.degree. with 4.12 g. DCC and kept at room temp. overnight yielded 38% DL-.alpha.-hydroxyisovaleryl deriv. of XXIV, n20D 1.5112. N-Phthaloyl-DL-valine (12.4 g.), m. 102.degree., treated with PCl5, and the resulting acid chloride treated at -10.degree. with stirring in 60 cc. Et2O with 10.5 g. VIII and 8 cc. C5H5N in 30 cc. Et2O yielded 76% N-phthaloyl-DL-valyl-DL-.alpha.-hydroxyisovaleric acid thiophenyl ester, n20d 1.5772. IX (3.8 g.) in 50 cc. dry Et2O treated at 0.degree. with 5.5 g. powd. PCl5, stirred 2 hrs., and evapd., and the resulting acid chloride dissolved in 20 cc. THF, added dropwise at -40.degree. to 1.6 g. Et3N and 2.13 g. XII in 25 cc. THF, stirred 1 hr., and kept overnight yielded 72% PhCH2O2COCHMeCO deriv. (XXV) of XIII, n20D 1.5072. XXV (3.5 g.) in 10 cc. MeOH treated at 0.degree. with 1 g. NaOH in 10 cc. H2O, acidified after 15 min. with 30 cc. dil. HCl, and extd. with Et2O, and the ext. stirred briefly with I g. dicyclohexylamine in 10 cc. Et2O yielded 45% dicyclohexylamine salt of carbobenzyloxylactyl-N-methyl-DL-alanine (XXVI), m. 103.degree.. XXVI (2.7 g.) in 20 cc. C5H5N treated dropwise at 0.degree. with 2.3 cc. PhSO2Cl, stirred 10 min., treated with 1.36 g. VII, and stirred 0.5 hr. at 0.degree. and 2 hrs. at room temp. yielded 2.2 g. cyanomethyl carbobenzyloxylactyl-N-methyl-DL-alanine-.alpha.-hydroxyisovalerate, n20D 1.5315. All products were hydrolyzed by refluxing with concd. HCl for several hrs.; the hydrolysates chromatographed on paper gave the following Rf values with 4:1 BuOH-H2O: IV, 0.85; II, 0.76; III, 0.17.

IT **98657-88-6**, Alanine, N-lactoyl-N-methyl-, ester with glycolonitrile, benzyl carbonate
(prepn. of)

RN 98657-88-6 ZCAPLUS

CN Alanine, N-lactoyl-N-methyl-, ester with glycolonitrile, benzyl carbonate (7CI) (CA INDEX NAME)



IT **98657-88-6**, Alanine, N-lactoyl-N-methyl-, ester with glycolonitrile, benzyl carbonate
(prepn. of)

L6 ANSWER 53 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1964:91431 Document No. 60:91431 Original Reference No. 60:16021a-c
Azo dyes. Fishwick, Brian R.; Wardleworth, James (Imperial Chemical Industries Ltd.). US 3097198 19630709, 5 pp. (Unavailable).
PRIORITY: GB 19590210.

GI For diagram(s), see printed CA Issue.

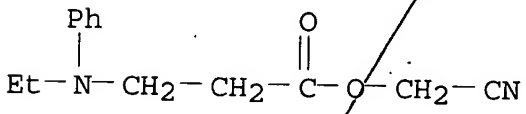
AB Compds. of the general formula I, where X is a benzene or

benzothiazole nucleus, R is Et or CH2CH2OMe, and R' is a substituted alkyl group, are H2O-insol. dyes for cellulose acetates and polyesters. Thus, 2.62 parts 4-O2NC6H4NH2 was diazotized and coupled with 4.411 parts PhNEtCH2CH2CO2CH2CN (II) to give I (X = 4-O2NC6H4, R = Et, R' = CH2CN), a red powder, which, dispersed by milling with (NaO3SC10H6)2CH2, dyed polyester fibers scarlet. Similarly, other I were prepd. (X, R', R, and shade given): 4-O2NC6H4, CH2CO2Et, Et, scarlet; 2,4-Cl(O2N)C6H3, CH2CN, Et, red; 6-(methylsulfonyl)-2-benzothiazolyl, CH2CO2Et, Et, red; 2,4-NC(O2N)C6H3, CH2COMe, Et, violet,; 2,4-F3C(O2N)C6H3, CH2CN, Et, bluish red; 5-nitro-2-benzothiazolyl, CH2CN, CH2CH2OMe, reddish blue; 4-O2NC6H4, CH2CH2NH2, Et, scarlet. II, b0.1 145-50.degree., was obtained by heating PhNEtCH2CH2CO2H and ClCH2CN in Et3N for 1 hr. at 90-100.degree., extg. with AcOEt, clarifying, extg. with 10% aq. NaHCO3, drying over MgSO4, evapg. the solvent, and distg. the residue. The other coupling components were obtained by similar methods.

IT **41314-02-7**, .beta.-Alanine, N-ethyl-N-phenyl-, ester with glycolonitrile **94308-22-2**, .beta.-Alanine, N-[3-chloro-4-[(2-chloro-4-cyanophenyl)-azo]phenyl]-Nmethyl-, ester with glycolonitrile **95128-33-9**, .beta.-Alanine, N-[p-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-(2-cyanoethyl)-, ester with glycolonitrile **95318-56-2**, .beta.-Alanine, N-[p-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-ethyl-, ester with glycolonitrile **95365-62-1**, .beta.-Alanine, N-(2-methoxyethyl)-N-[4-[(5-nitro-2-thiazolyl)azo]-m-tolyl]-, ester with glycolonitrile
(prepn. of)

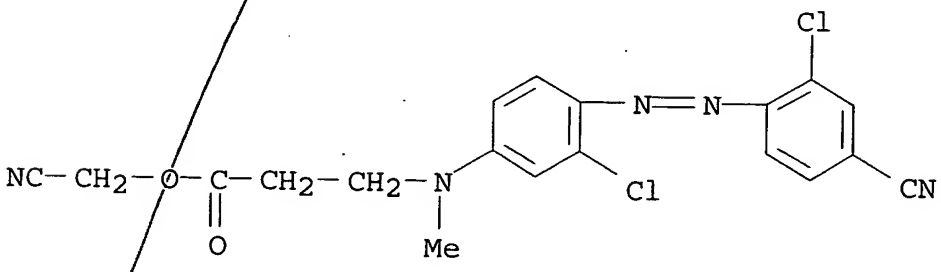
RN 41314-02-7 ZCAPLUS

CN .beta.-Alanine, N-ethyl-N-phenyl-, cyanomethyl ester (9CI) (CA INDEX NAME)

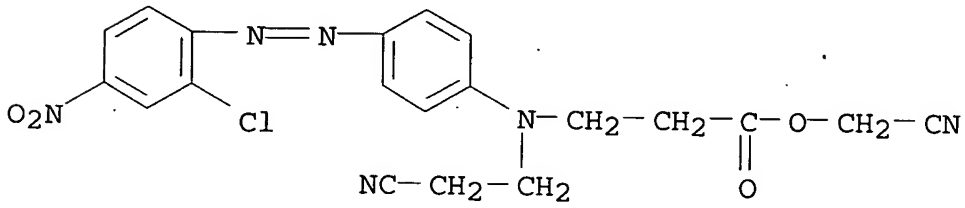


RN 94308-22-2 ZCAPLUS

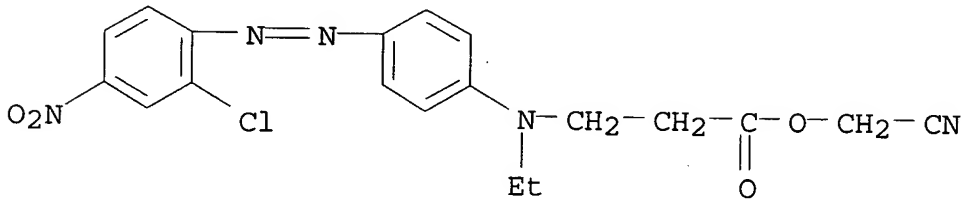
CN .beta.-Alanine, N-[3-chloro-4-[(2-chloro-4-cyanophenyl)azo]phenyl]-N-methyl-, ester with glycolonitrile (7CI) (CA INDEX NAME)



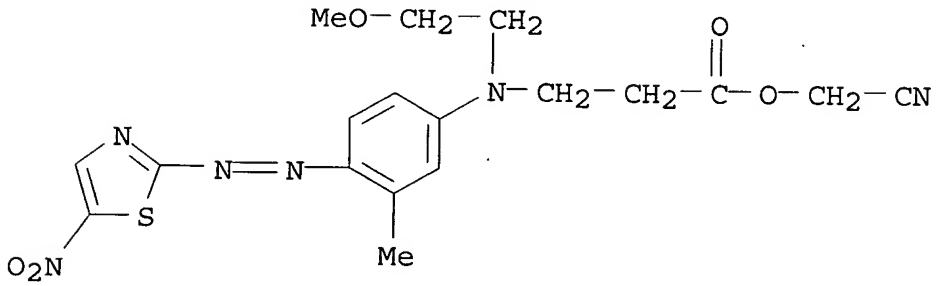
RN 95128-33-9 ZCAPLUS
CN .beta.-Alanine, N-[p-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-(2-cyanoethyl)-, ester with glycolonitrile (7CI) (CA INDEX NAME)



RN 95318-56-2 ZCAPLUS
CN .beta.-Alanine, N-[p-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-ethyl-, ester with glycolonitrile (7CI) (CA INDEX NAME)



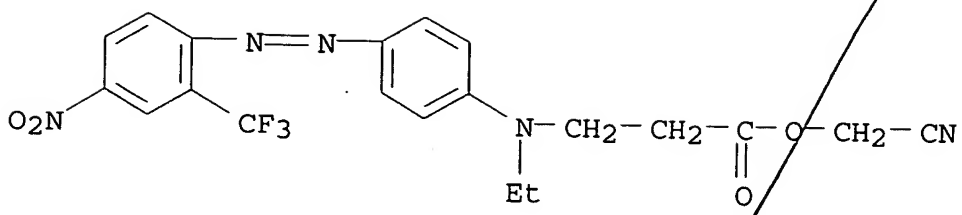
RN 95365-62-1 ZCAPLUS
CN .beta.-Alanine, N-(2-methoxyethyl)-N-[4-[(5-nitro-2-thiazolyl)azo]-m-tolyl]-, ester with glycolonitrile (7CI) (CA INDEX NAME)



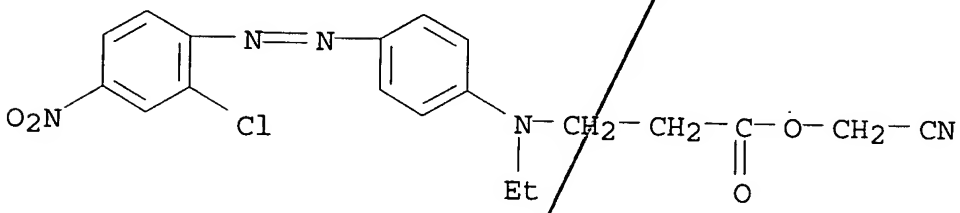
IT **41314-02-7**, .beta.-Alanine, N-ethyl-N-phenyl-, ester with glycolonitrile **94308-22-2**, .beta.-Alanine, N-[3-chloro-4-[(2-chloro-4-cyanophenyl)-azo]phenyl]-Nmethyl-, ester with glycolonitrile **95128-33-9**, .beta.-Alanine, N-[p-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-(2-cyanoethyl)-, ester with glycolonitrile **95318-56-2**, .beta.-Alanine, N-[p-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-ethyl-, ester with glycolonitrile **95365-62-1**, .beta.-Alanine,

N-(2-methoxyethyl)-N-[4-[(5-nitro-2-thiazolyl)azo]-m-tolyl]-, ester with glycolonitrile
(prepn. of)

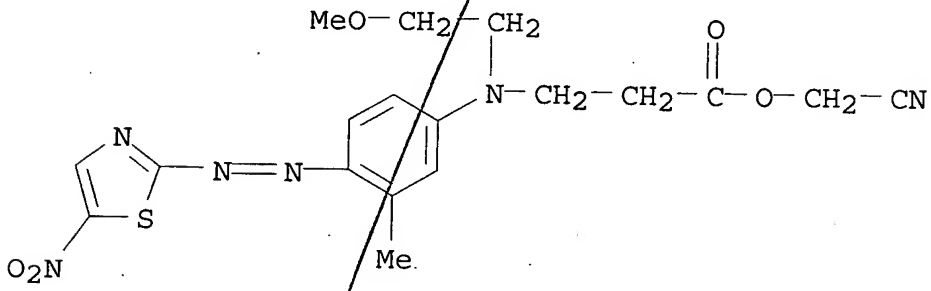
L6 ANSWER 54 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1964:53170 Document No. 60:53170 Original Reference No. 60:9394c-f
Monoazo dyes containing ester groups. Fishwick, Brian Ribbons; Wardleworth, James (Imperial Chemical Industries Ltd.). GB 909843 19621107, 10 pp. (Unavailable). APPLICATION: GB 19590210.
GI For diagram(s), see printed CA Issue.
AB Water-insol. compds. of the general structure I dye polyester fibers (II) orange to blue shades fast to light, washing, and dry heat. D is a mono- or bicyclic aromatic nucleus, and D and the nucleus E may be substituted with groups other than SO3H and CO2H. R is Et or CH2CH2OMe; A is CH2 or CH2CH2; and X is CN, CO2Et, Ac, NH2, or NHAc. Thus, a filtered soln. contg. diazotized p-O2NC6H4NH2 2.62 added over 15 min. to a mixt. of PhN(Et)CH2CH2CO2CH2CN (b0.1 145-50.degree.) 4.41, H2O 50, 10N HCl3, and Me2CO 50 parts, forms a clear soln. at 5-10.degree.; satd. NaOAc is added, the mixt. stirred 30 min. and filtered. The ppt. is slurried in 300 parts H2O, Na2CO3 added, the mixt. filtered, and the product washed with water and dried, yielding 4-O2NC6H4N:NC6H4[N(Et)CH2CH2CO2CH2CN]-4, a red powder, bright scarlet on II. Also prepd. are (dye, appearance, shade on II): 4-O2NC6H4N:NC6H4[N(Et)CH2CH2CO2-CH2CO2Et]-4, red powder, bright scarlet; 2,4-Cl(O2N)C6H3N:-NC6H4[N(Et)CH2CH2CO2CH2CN]-4, red powder, red; 2-[4-[N-ethyl-N- [.beta.-[(carbethoxymethoxy)carbonyl] ethyl] amino] phenyl-azo]-6-(methylsulfonyl)benzothiazole, --, bright red; 2,4-NC-(O2N)C6H3N:NC6H4[N(Et)CH2CH2CO2CH2Ac]-4, --, reddish violet; 2,4 - F3C(O2N)C6H3N: NC6H4[N(Et)CH2CH2CO2CH2-CN]-4, --, bluish red; 2-[2-methyl-4-[N-(.beta.-methoxyethyl)-N-[.beta. - (cyanomethoxycarbonyl)ethyl]amino]phenylazo] - 5 - nitrothiazote, -, reddish blue; 4-O2NC6H4N:NC6H4[N(Et)CH2CH2CO2CH2CH2NH2]-4, --, scarlet; and 4-O2NC6H4N :NC6H4[N(Et)CH2CH2CO2CH2CH2NHAc]-4, --, scarlet.
IT **1959-20-2**, .beta.-Alanine, N-ethyl-N-[p-[(.alpha.,.alpha.,.alpha.-trifluoro-4-nitro-o-tolyl)azo]phenyl]-, ester with glycolonitrile **95318-56-2**, .beta.-Alanine, N-[p-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-ethyl-, ester with glycolonitrile **95365-62-1**, .beta.-Alanine, N-(2-methoxyethyl)-N-[4-[(5-nitro-2-thiazolyl)azo]-m-tolyl]-, ester with glycolonitrile
(prepn. of)
RN 1959-20-2 ZCAPLUS
CN .beta.-Alanine, N-ethyl-N-[p-[(.alpha.,.alpha.,.alpha.-trifluoro-4-nitro-o-tolyl)azo]phenyl]-, ester with glycolonitrile (7CI, 8CI) (CA INDEX NAME)



RN 95318-56-2 ZCAPLUS
CN .beta.-Alanine, N-[p-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-ethyl-, ester with glycolonitrile (7CI) (CA INDEX NAME)



RN 95365-62-1 ZCAPLUS
CN .beta.-Alanine, N-(2-methoxyethyl)-N-[4-[(5-nitro-2-thiazolyl)azo]-m-tolyl]-, ester with glycolonitrile (7CI) (CA INDEX NAME)



IT **1959-20-2**, .beta.-Alanine, N-ethyl-N-[p-[(.alpha.,.alpha.,.alpha.-trifluoro-4-nitro-o-tolyl)azo]phenyl]-, ester with glycolonitrile **95318-56-2**, .beta.-Alanine, N-[p-[(2-chloro-4-nitrophenyl)azo]phenyl]-N-ethyl-, ester with glycolonitrile **95365-62-1**, .beta.-Alanine, N-(2-methoxyethyl)-N-[4-[(5-nitro-2-thiazolyl)azo]-m-tolyl]-, ester with glycolonitrile
(prepn. of)

L6 ANSWER 55 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1963:482510 Document No. 59:82510 Original Reference No. 59:15382c-f
Racemization during peptide synthetic work. III. Partial racemization during preparation of activated cyanomethyl esters of N-protected amino acids. Liberek, Bogdan; Nowicka, Aldona; Grzonka,

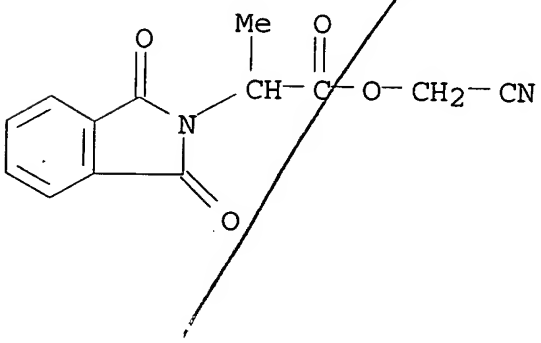
Zbigniew (School Educ., Gdansk, Pol.). Tetrahedron Letters (22), 1479-83 (English) 1963. CODEN: TELEAY. ISSN: 0040-4039.

AB cf. CA 59, 12918c. A series of N-protected amino acids (I) was converted to the cyanomethyl esters at room temp. and in EtOAc at reflux to det. the effect of the protective group on the extent of the racemization during the esterification. The appropriate I (4 millimoles) treated 18 hrs. at room temp. with 8 millimoles ClCH2CN and 6 millimoles Et3N gave the corresponding ester; method A. The appropriate I (4 millimoles) and 6 millimoles each of ClCH2CN and EhN in 6 ce. EtOAc refluxed 5 hrs. yielded the corresponding ester; method B. The following I were converted by these methods to their cyanomethyl esters [% yield, m.p. of product crystd. from the min. amt. iso-PrOH or EtOH, [.alpha.]D (c 2.0, Me2CO), and m.p. of recrystd. sample of product obtained by methods A and B given]: carbobenzyloxyphenylalanine, 70, 52-4.degree., -32.5.degree., 55-6.degree., 74, 54-79.degree., (it was sepd. into material, m. 51-5.degree., [.alpha.]D -31.3.degree., and extensively racemized ester, m. 8493.degree., [.alpha.]D -14.9.degree.), -; carbobenzyloxyalanine, 95, 38.5-40.degree., -32.2.degree., 41-2.degree. (petr. ether, b. 125-40.degree.), 73, 37-9.degree., -29.7.degree., 38.5-40.degree. (petr. ether); phthalylalanine, 91, 115-17.degree., -37.0.degree., 117-18.degree., 94, 88-90.degree., -1.8.degree., 90-1.5.degree.; phthalylphenylalanine, 75, 139-41.degree., -206.0.degree., 152.degree., 88, 117-21.degree., -12.8.degree., 118-20.degree.; phthalylleucine, 94, 73-6.degree., -38.1.degree., 75-6.5.degree., 96, 69-71.5.degree., -22.0.degree., 69-72.5.degree.; phthalylcyanoalanine, 69, 117-20.degree., -1.9.degree., 119-21.degree., 68, 116-20.degree., 0.0.degree., 121-2.degree.; tosyl-L-pyroglutamate, 73, 143-4.degree., -29.9.degree., 143.5-4.5.degree., 72, 143-4.degree., -29.4.degree., 143.5-4.5.degree.; O,N-dibenzoyltyrosine, 97, 157-61.degree., -75.8.degree. (c 2.0, HCONMe2), 158.5-62.degree., 08, 185-9.degree., -26.5.degree. (c 2.0, HCONMe2), 190-1.5.degree.. All racemizations can be explained in terms of a base-catalyzed initial proton abstraction from the .alpha.-C atom.

IT **95708-10-4**, 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile
(racemization in prepn. of)

RN 95708-10-4 ZCAPLUS

CN 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile (7CI) (CA INDEX NAME)



IT **95708-10-4**, 2-Isoindolineacetic acid, .alpha.-methyl-1,3-dioxo-, ester with glycolonitrile
(racemization in prepn. of)

L6 ANSWER 56 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN
1960:67932 Document No. 54:67932 Original Reference No. 54:13013g-i,13014a-i,13015a-b Synthesis of various oligopeptides from L-glutamic acid and glycine. Helferich, Burckhardt; Schellenberg, Peter; Ullrich, Johannes (Univ. Bonn, Germany). Chemische Berichte, 90, 700-11 (Unavailable) 1957. CODEN: CHBEAM. ISSN: 0009-2940.

AB In the following compds., Cbo = carbobenzyloxy. All evapns. were made in vacuo; unless otherwise specified 96% EtOH was used in [.alpha.]D detns. Phthaloylglycine (I) (0.02 mole), 0.02 mole Et3N and 2 cc. ClCH2CN were refluxed 5 hrs. in 50 cc. abs. AcOEt, decanted from solid Et3NHCl, and, after washing the ppt. with AcOEt, the solns. were evapd. to give 4.6 g. cyanomethyl ester of phthaloylglycine, m. 132-3.5.degree. (AcOEt). Formed similarly with slight modifications from p-nitrocarbobenzyloxyglycine was 85-90% cyanomethyl ester of p-nitrocarbobenzyloxyglycine (Ia), m. 77-9.degree. (AcOEt by addn. of Et2O and petr. ether). Cbo-L-glutamic acid (0.1 mole), 22 cc. PhCH2OH, and 3 g. PhSO3H (or p-MeC6H4SO3H) in 250 cc. PhMe was refluxed 3 hrs., and 4 cc. H2O were removed azeotropically. The mixt. shaken 6 hrs. with 6 g. MgO, filtered, washed with C6H6, and the combined solns. evapd., and treated with 250 cc. EtOH contg. little H2O gave 36 g. di-benzyl Cbo-L-glutamate (II), m. 70-1.degree. (85% EtOH, AcOEt-petr. ether, or Et2O-petr. ether), [.alpha.]21D -18.8.degree.; -8.5.degree. (AcOEt). Formed similarly to II was dibenzyl p-nitrocarbobenzyloxy-glutamate, m. 81.degree. (EtOH), [.alpha.]22D -11.2.degree.; -4.9 (AcOH); and [.alpha.]21D -7.5 (AcOEt). The following salts of dibenzyl L-glutamate (IIa) were prepd. from II by fission of the Cbo group: HCl, m. 97-8.degree. (by carefully monitoring the HCl gas used, to prevent racemization); PhSO3H, m. 109-13.degree., [.alpha.]21D 8.4.degree.; HBr, m. 100-2.degree. (little MeOH, followed by an excess Et2O), or 81-3.degree. (when the solvent of crystn. was retained); HNO3, m. 134-7.degree. (H2O, AcOEt, or MeOH-Et2O), [.alpha.]20D 10.9.degree.. In the following derivs. of L-glutamic acid, R = phthaloyl. I (0.02 mole) and 2.8 cc. abs. Et3N in 50 cc. dry CHCl3 at -10.degree. treated with 0.021 mole ClCO2Et, kept 10-20 min. at -5.degree., treated with L-EtO2CCH2CH2CH(NH2)CO2Et.HCl (III) in 30 cc. CHCl3 followed promptly by 3 cc. Et3N, kept 12 hrs. at 20.degree., then washed successively thrice with N HCl, once with H2O, and thrice with aq. NaHCO3, dried with Na2SO4, and evapd. gave 6 g. R:NCH2CONHCH(CO2Et)CH2CH2CO2Et (IV), m. 143.degree. (H2O or little MeOH), [.alpha.]22D -17.8.degree.. Phthaloylglycyl chloride and III (0.02 mole each) stirred in 40 cc. CHCl3 at -20.degree., treated dropwise with 0.04 mole Et3N in 20 cc. CHCl3, and stirred 1 hr. each at -20.degree., 0.degree., and 20.degree., and kept 10 hrs. at 20.degree. yielded 5.6 g. IV. Formed similarly to IV, was 79% of the di-Me ester (homolog of IV), m. 158-60.degree. (H2O or EtOH),

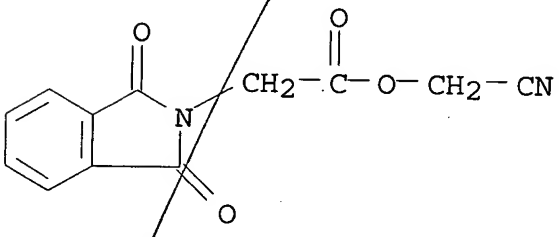
[.alpha.]22D -16.2.degree., showing no rotation in glacial AcOH. I with a slight excess of IIa.HCl yielded, after similar treatment, 86% R:NCH2CONHCH(CO2CH2Ph)(CH2)2CO2CH2Ph (V), m. 90-3.degree. (EtOH), at times giving a gel which crystd. very slowly, [.alpha.]20D -17.1.degree.. IV (or its di-Me homolog), kept 1-2 hrs. at 20.degree. in 40 cc. HCl (d. 1.19), filtered and evapd. gave 74% corresponding free acid monohydrate, C15H14O7N2.H2O (VI), m. 85-90.degree., resolidifying at 110.degree., rem. 194-6.degree., [.alpha.]22D 4.7.degree. (anhyd.), showing no measurable .alpha.D in MeOH. VI (3.52 g.) (dried in vacuo) in 50 cc. PhMe was refluxed 2.5 hrs. with PhCH2OH and 150 mg. PhSO3H, and distd. to remove H2O to give 4 g. V, m. 89-92.degree.. V (0.5 g.) in 50 cc. EtOH was hydrogenated with 0.5 g. Pd-black to give 0.26 g. VI. Cboglycine (0.02 mole) and 2.8 cc. Et3H in 50 cc. CHCl3 and 2 cc. ClCO2Et at -5.degree. yielded a mixed anhydride, which with 5 g. III gave 76-85% CboNHCH2CONHCH(CO2Et)CH2CH2CO2Et (VII), usually obtained as a sirup (that was used in further condensations), at times giving poor yields of platelets, m. 53-5.degree. (AcOEt-petr. ether), [.alpha.]20D -11.9.degree.. To III (0.021 mole) and 0.02 mole CboNHCH2CO2CH2CN in 50 cc. dry CHCl3 contg. 5-10 drops glacial AcOH was added gradually with stirring 3 cc. Et3N at 40-50.degree. and the mixt. kept 10 hrs. at 50.degree. to give 81% VII (sirup). By very similar reactions, with only slight modifications, were formed the following diesters of p-nitrocarobenzyloxyglycyl-L-glutamic acid: 57% di-Et, m. 85-7.degree. (aq. EtOH), [.alpha.]21D -8.2.degree.; 51% di-Me, m. 154-60.degree. (EtOH-petr. ether), [.alpha.]19D 5.4.degree. (dioxane); 72% di-PhCH2 (VIIa) m. 94-5.degree. (EtOH-Et2O-petr. ether), [.alpha.]19D -14.3.degree.. VI (0.02 mole) in 150 cc. EtOH was refluxed 1 hr. with 40 cc. aq. M N2H4.H2O soln., evapd. at 50.degree., dissolved in 80 cc. H2O, acidified to pH 4 with AcOH, kept at 0.degree., and filtered from pptd. phthalic acid hydrazide, which was washed with ice-H2O. The combined filtrates evapd. to a sirup, treated with 5 cc. H2O, kept at 0.degree., refiltered, and the filtrate treated with 80 cc. 99% EtOH gave 3.7 g. flocculent ppt., which dried to a hygroscopic amorphous powder; this in hot H2O was treated with enough EtOH to give incipient cloudiness, then with a few drops of H2O to complete soln., and cooled very gradually to give glycyl-L-glutamic acid hemihydrate (VIII), platelets, m. 152-3.degree. (after drying 3 hrs. at 110.degree./12, P2O5); [.alpha.]22D -6.4.degree. (H2O), chromatographically homogeneous, in 3 different developers; it gave a yellow ninhydrin reaction, changing to purple. VIIa (480 mg.) hydrogenated 6 hrs. in 60% EtOH with 0.3 g. Pd gave 110 mg. VIII, noncryst., but chromatographically identical with VIII given above. Crude VIII (0.02 mole) in 80 cc. abs. EtOH and 10 cc. 10% HCl in abs. EtOH, was hydrogenated with 0.5 g. Pd until CO2 evolution stopped, filtered, evapd., taken up in 40 cc. hot AcOEt, cooled, and kept 24 hrs. at 0.degree. to yield 4.0-4.4 g. H2NCH2CONH.CH(CO2Et)CH2CH2CO2Et, m. 113-15.degree. (AcOEt) [.alpha.]18D -13.7.degree.; also formed in 66% yield by refluxing VII in EtOH contg. HCl. From 5.9 g. Cbo-L-glutamic acid, .gamma.-Me ester (VIIIIa), 2.8 cc. Et3N, and 2 cc. ClCO2Et in 30 cc. CHCl3, by

addn. of H2NCH2CO2Et.HCl in 40 cc. CHCl3, followed by addn. of 2.8 cc. Et3N and treatment similar to that described, was formed 5.5 g. CboNHCH(CH2CH2CO2Me)CONHCH2CO2Et (IX), m. 94.degree. (AcOEt), [.alpha.]19D -14.4.degree. (glacial AcOH). IX (66%) was also formed by treating 0.02 mole H2NCH2COEt.HCl in 40 cc. pyridine at -10.degree. to 0.degree., with 0.01 mole PCl3, and adding dropwise pyridine and 0.02 mole VIIIa. IX (0.02 mole) in 100 cc. 99% EtOH and small amts. of dry HCl in EtOH hydrogenated gave 83% H2NCH(CH2CH2COMe)CONHCH2CO2Et.HCl, m. 91-1.5.degree. (AcOEt), [.alpha.]19D 32.degree. (H2O). VIIIa (0.02 mole) and 0.02 mole di-Et glutamate-HCl by the usual method gave 68-80% di-Et ester of Cbo-.alpha.-L-glutamyl-[.gamma.-methyl ester]-L-glutamate, m. 81-2.degree. (AcOEt petr. ether). Also formed by similar methods were: 75% CboNHCH(CH2CH2CO2Me)CONHCH2CONHCH(CO2-Et)CH2CH2CO2Et, m. 94.degree. (AcOEt-petr. ether), [.alpha.]22D -10.0.degree.; 58% of its tri-Et ester homolog, C26H37O10N3, m. 121.degree. (AcOEt), [.alpha.]22D -10.5.degree., and 70% CboNHCH(CH2CH2CO2Me) CONHCH(CH2CH2CO2Me)CONHCH2CO2Et, m. 140-1.degree. (AcOEt-petr. ether), [.alpha.]25D -20.6.degree. (glacial AcOH). 27 references.

IT **3589-47-7**, 2-Isoindolineacetic acid, 1,3-dioxo-, cyanomethyl ester
(prepn. of)

RN 3589-47-7 ZCAPLUS

CN 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile (7CI, 8CI) (CA INDEX NAME)



IT **3589-47-7**, 2-Isoindolineacetic acid, 1,3-dioxo-, cyanomethyl ester
(prepn. of)

L6 ANSWER 57 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1959:121556 Document No. 53:121556 Original Reference No. 53:21699f-i,21700a-e Amides. Schwyzer, Robert; Iselin, Beat M.; Feurer, Max (C I B A Ltd.). CH 324532 19571115 (Unavailable). APPLICATION: CH .

AB Amides (I) were prepd. by treating aminocarboxylic esters (II) with amines, in which the alcohol derived portion of II contd. an electron-withdrawing group, e.g. CN, CO2R, NO2, SO2, O, halogen or carbamyl. II can be aliphatic, aromatic, aralkyl or heterocyclic. Especially suitable are compds. contg. aminocarboxylic acid groups, the amino group being sepd. from the carbonyl group by 1-4 C atoms and the amino group being substituted or unsubstituted, e.g. natural

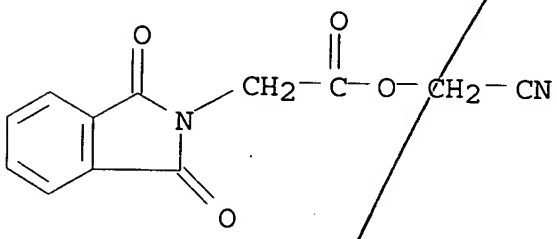
amino acids. To illustrate: 1.09 g. hippuric acid (III) cyanomethyl ester and 0.53 g. PhCH2NH2 (IV) in 10 cc. AcOH after 5 min. at 24.degree. gave 1.1 g. BzNHCH2CONHCH2Ph (V), m. 157-8.degree.. The use of twice the amt. of IV gave 96% yield. The following solvents, when used as the reaction medium, gave these yields (%): EtOH (60), 1:1 EtOH-H2O (56), 2:3 Me2NCHOH2O (74). The corresponding amides of III were similarly prepd. from the following amines (% yield and m.p. given): C6H11NH2, 91, 161.degree.; PrNH2, 95, 185-6.degree.; PhNH2, 63, 211-12.degree.. BzNHCH2CO2CH2CN (VI) was prepd. by treating 3.58 g. III with 2.27 g. ClCH2CN in 30 cc. AcOH in the presence of 3.03 g. Et3N at reflux 3 hrs., cooling, filtering off the Et3N.HCl, adding NaHCO3 soln., washing with H2O, and drying to give 3.47 g. VI, m. 99-100.degree. (Me2CO-ether). VI was also synthesized in other solvents to give yields (% given): Me2CO (83), C6H6 (80), MeCN (76), Me2NCHO (75). The following compds. were also prepd. (% yield and m.p. given): BzNHCH2CONHCH2CO2Et, 94, 116-17.degree.; BzNHCH2CONHCH2CO2H, 70, 205-7.degree.; BzNHCH2CO2CH2CO2Et, 82, 70-1.degree.; BzNHCH2CO2CH2Ac, 65, 90-2.degree.; BzNHCH2CO2CH2C6H4NO2-p, 8, 134-5.degree.; BzNHCH2CO2CH2CH2NMeEt2Br, -, -; BzNHCH2CO2CH2OMe, 67, - (b0.01 136-8.degree.); PhCH2OCONHCH2CONHCH2Ph, 80, 113-14.degree.; .omicron.-C6H4(CO)2NCH2CONHCH2Ph, 88, 209-10.degree.; p-MeC6H4SO2NHCH2CONHCH2Ph, 92, 114-15.degree.; PhCH2OCONHCH2CO2CH2CN, 83, 64-5.degree.; .omicron.-C6H4(CO)2NCH2CO2CH2CN, 76, 129-30.degree.; p-MeC6H4SO2NHCH2CO2CH2CN, 81, 82-3.degree.; .omicron.-C6H4(CO)2N(CH2)2CONC5H10, 85, 137-8.degree.; .omicron.-C6H4(CO)2N(CH2)2CO2CH2CN, 85, 97-7.5.degree.; .omicron.-C6H4(CO)2N(CH2)2CO2CH2CO2Et, 96, 91-2.degree.; PhCH2OCO(NHCH2CO2)2NHCH2CO2H, 96, 194-5.degree.; PhCH2OCONHCH2CO2CH2CO2Et, 98, 44-5.degree.; DL-PhOCONHCH2CONHCH(CH2CH2SMe)CO2H, 86, 121-3.degree.; DL-PhOCONHCH2CONH(CH2)2CONHCH2CO2CH2CN, 95, 145-5.5.degree.; DL-PhOCONHCH2CONH(CH2)2CONHCH2CONHCH2CO2Me, 92, 144-5.degree.; L-PhCH2NHCOCH(NHOCC6H4NO2-p)CH2CH2CONHCH2Ph, 89, 219-20.degree.; L-NCCH2O2CCH2CH2CH(NHOCC6H4NO2-p)CO2CH2CN, 74, 102-2.5.degree.; L-[SCH2CH(NHOCOCH2Ph)CO2CH2CN]2, -, 93-3.5.degree.; L-PhCH2OCONHCH(CO2CH2CN)CH2CONH2, -, 128-9.degree.; L-[SCH2CH(NHOCOCH2Ph)CO2CH2CO2Et]2, -, 105.5-106.degree.; L-PhCH2OCONHCH(CO2CH2CO2Et)CH2CONH2, -, 112-13.degree.; DL-Me2CHCH2CH(NHOCOCH2C6H4NO2-p)CONHCH2CO2Et, 78, 90-1.degree.; DL-Me2CH2CH(NHOCOCH2C6H4NO2-p)COCH2CN, 68, 64-5.degree.; DL-Me2CHCH2CH(NHOCOCH2C6H4NO2-p)CO2CH2C6H4NO2-p, 72, 71-3.degree.; DL-Me2CHCH2CH(NHOCOCH2C6H4NO2-p).CONHCH2Ph, 76, 129-31.degree.; DL-MeS(CH2)2 CH(NHO2SC6H4Me-p)CO2CH2CN, 80, 80-1.degree.; DL-MeS(CH2)2CH(NHO2SC6H4Me-p)CONHCH2CO2Et, 86, 88-90.degree.; DL-MeS(CH2)2CH(NHO2SC6H4Me-p)CO2CH2CO2Et, 69, - (b0.01 203-6.degree.); DL-MeS(CH2)2CH(NHO2SC6H4Me-p)CONH(CH2)2Ph, 84, 89-90.degree.; L-p-PhCH2OCO2C6H4CH2CH (NHOCOCH2Ph) COCH2CN, 82, 79-80.degree.; L-p-PhCH2OCO2C6H4CH2CH(NHOCOCH2Ph)CONHCH2Ph, 93, 187-9.degree.; L-p-PhCH2OCO2C6H4CH2CH(NHOCOCH2Ph)CO2CH2CO2Et, 71, 98-100.degree.; L-p-PhCH2 OCO2C6H4CH2CH(NHOCOCH2Ph)CONHCH2CO2Et, 94,

164-5.degree.. Also prepd. were cyanomethyl 5-benzyloxy-3-indoleacetate, m. 91-2.degree., carbethoxymethyl 5-benzyloxy-2-indolecarboxylate, m. 148-9.degree., and dicarbobenzyloxy-L-tyrosyl-DL-leucine Et ester, m. 159-60.degree. (Me2CO-ether) (68% yield).

IT **3589-47-7**, 2-Isoindolineacetic acid, 1,3-dioxo-, cyanomethyl ester
(prepn. of)

RN 3589-47-7 ZCAPLUS

CN 2-Isoindolineacetic acid, 1,3-dioxo-, ester with glycolonitrile (7CI, 8CI) (CA INDEX NAME)



IT **3589-47-7**, 2-Isoindolineacetic acid, 1,3-dioxo-, cyanomethyl ester
(prepn. of)

L6 ANSWER 58 OF 58 ZCAPLUS COPYRIGHT 2003 ACS on STN

1956:12130 Document No. 50:12130 Original Reference No. 50:2482d-h Activated esters. II. Synthesis of activated esters of amino acid derivatives. Schwyzer, R.; Feurer, M.; Iselin, B.; Kagi, H. (CIBA Co., Basel, Switz.). Helvetica Chimica Acta, 38, 80-3 (German) 1955. CODEN: HCACAV. ISSN: 0018-019X.

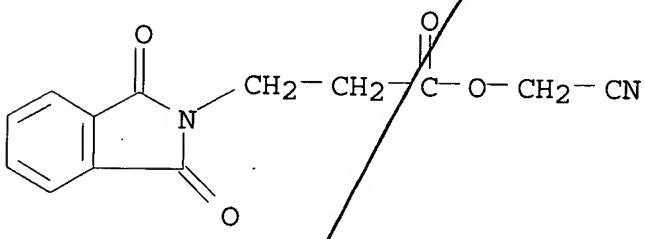
AB PhCH2O2CNHCH2CO2H (I, 0.02 mole), 0.02 mole NEt3, and 30 ml. AcOEt refluxed 3 hrs. with 0.03 mole ClCH2CN gave a ppt. of HNEt3Cl; from the soln., washed with dil. HCl and then with NaHCO3 soln., was recovered 0.3 g. unreacted I. The neutral fraction furnished 4.1 g. NCCH2 ester (II) of I, m. 69-70.degree. (from Et2O). NCCH2 esters of the following acid derivs. were prepd. in a similar way (m.p. and % yield given in parentheses): p-toluenesulfonylglycine (94.degree., 81); phthaloyl-.beta.-alanine (97.degree., 87); and p-nitrocarbobenzyloxy-DL-leucine (68.degree., 68). Other activated esters prepd. were the EtO2CCH2 of dicarbobenzyloxy-L-tyrosine (100.degree., 71), [.alpha.]D 3.degree. (c 1, CHCl3), and of p-toluenesulfonyl-DL-methionine (b0.02 205.degree., 62), and the p-nitrobenzyl ester of p-nitrocarbobenzyloxy-DL-leucine (75.degree., 72). Alternatively, to a mixt. of 0.1 mole I and 0.15 mole NEt3 was added 0.3 mole ClCH2CN to obtain a soln. which heated spontaneously to 50-60.degree. and was kept 0.5 hr. at 70.degree.; the excess ClCH2CN removed in vacuo, and the residue dild. with AcOEt. From the neutral fraction was obtained 23.4 g. II. The NCCH2 esters of the following amino acid derivs. were prepd. according to this method (m.p. and yield given in parentheses): p-toluenesulfonyl-DL-

methionine (85.degree., 80); dicarbobenzyloxy-L-tyrosine (99.degree., 82), [.alpha.]D 2.degree. (CHCl3) [from dicarbobenzyloxy-L-tyrosine, [.alpha.]D23 2.degree. (c 1, CHCl3)]; p-toluenesulfonyl-L-glutamine (117.degree., 68), [.alpha.]D -21.degree. (acetone) [from p-toluenesulfonyl-L-glutamine, m. 150.degree., [.alpha.]D22 29 .+-. 4.degree. (c 1, acetone)]; p-nitrobenzoyl-L-glutamic acid (diester, 102.degree., 74), [.alpha.]D -20.degree. (acetone) [from p-nitrobenzoyl-L-glutamic acid, [.alpha.]D23 -20 .+-. 4.degree. (c 1, acetone)]; and carbobenzyloxyglycyl-DL-alanylglycine (145.degree., 95). The NCCH2 esters were air-stable cryst. compds., apparently obtained without racemization.

IT **108923-33-7**, 2-Isoindolinepropionic acid, 1,3-dioxo-, cyanomethyl ester
(prepn. of)

RN 108923-33-7 ZCAPLUS

CN 2-Isoindolinepropionic acid, 1,3-dioxo-, cyanomethyl ester (6CI) (CA INDEX NAME)



IT **108923-33-7**, 2-Isoindolinepropionic acid, 1,3-dioxo-, cyanomethyl ester
(prepn. of)

=> d l29 1-49 ti

L29 ANSWER 1 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Preparation of amino acid salts soluble in organic solvents and their use in dipeptide synthesis

L29 ANSWER 2 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Methods for the detection, analysis and isolation of nascent proteins

L29 ANSWER 3 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Broadening of the substrate tolerance of .alpha.-chymotrypsin by using the carbamoylmethyl ester as an acyl donor in kinetically controlled peptide synthesis

L29 ANSWER 4 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Utility of some new multifunctional additives to Egyptian gasoline

L29 ANSWER 5 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Remarkable effects of donor esters on the .alpha.-chymotrypsin-catalyzed couplings of inherently poor amino acid substrates

L29 ANSWER 6 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Preparation of novel phthalimide compounds as herbicides

L29 ANSWER 7 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Combined Use of Subtilisin and N-Acetylneuraminic Acid Aldolase for the Synthesis of a Fluorescent Sialic Acid

L29 ANSWER 8 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Enantiomeric separation of N-protected non-protein amino acid esters by chiral high-performance liquid chromatography

L29 ANSWER 9 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Activation of carboxylic acids by pyrocarbonates: synthesis of symmetric anhydrides and esters of N-protected amino acids using dialkyl pyrocarbonates as condensing reagents

L29 ANSWER 10 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Synthesis and carbenic decomposition of functionally substituted diazoacetic esters. 8. Cyanomethyl diazoacetate

L29 ANSWER 11 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI An efficient antibody-catalyzed aminoacylation reaction

L29 ANSWER 12 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Fluorinated amino acids and peptides. Synthesis of 3,3-difluoro-2-amino acids, peptides and cyclodipeptides incorporating 3,3-difluoro-2-aminobutyric acid or 3,3-difluorophenylalanine residues in their structures

L29 ANSWER 13 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Cyano substituted ozonides: preparation, properties and unusual behavior towards reducing agents

L29 ANSWER 14 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI 3-Hydroxypropionitrile: a new reagent for carboxyl protection in peptide synthesis

L29 ANSWER 15 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Photochemistry of bis-2H-tetrazoles. III. Detection of bisnitrileimines through low-temperature UV spectroscopy and thermic consecutive reactions through photolysis of bis-2H-tetrazoles

L29 ANSWER 16 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Protection of the carboxyl group as 2-cyanoethyl ester during peptide synthesis

L29 ANSWER 17 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Amide bond isosteres: imidazolines in pseudopeptide chemistry

L29 ANSWER 18 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Photochemistry of bis-2H-tetrazoles. Part 4. Identification of bisnitrilimines by low-temperature IR spectroscopy

L29 ANSWER 19 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Papain catalyzed esterification of alanine by alcohols and diols

L29 ANSWER 20 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Enzyme substrates. VI. Synthesis of glycyl-L-proline p-nitroanilide

L29 ANSWER 21 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI N-Phenyltetrahydrophthalimide derivatives as herbicides

L29 ANSWER 22 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Tetrahydrophthalimide compounds and their use

L29 ANSWER 23 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Carbon-13 NMR sequence analysis. 21. Stereoselectivity of oligopeptide syntheses

L29 ANSWER 24 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Methine disperse dyes

L29 ANSWER 25 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Herbicidal and plant growth regulant diphenylpyridazinones

L29 ANSWER 26 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Synthesis and complex formation 2,7-dioxo-1,8-bis(salicylidenimine) of -3,6-diaza-octane

L29 ANSWER 27 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Nuclear magnetic resonance spectra of sultams. Part 3. 60, 90 and 250 MHz proton NMR spectra of sultams and sultones

L29 ANSWER 28 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Antifertility activity of N-protected glycine activated esters

L29 ANSWER 29 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Infrared spectral absorption bands associated with five-membered sultam rings

L29 ANSWER 30 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Some ester derivatives of 2-methylalanine as intermediates in peptide synthesis

L29 ANSWER 31 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Antitumor and antiinflammatory agents: N-benzoyl-protected cyanomethyl esters of amino acids

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TI Synthesis of peptides of the amino acids 3,5-di-tert-butyl-4-hydroxyphenylalanine and -glycine

L29 ANSWER 33 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Hydroxamic acid derivatives for regulating plant growth

L29 ANSWER 34 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Antineoplastic agents. 2. Structure-activity studies on N-protected vinyl, 1,2-dibromoethyl, and cyanomethyl esters of several amino acids

L29 ANSWER 35 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Synthesis of dipeptides which contain .alpha.-aminonitriles as their C-terminal residues

L29 ANSWER 36 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Ultraviolet light-absorbing .alpha.-cyano-.beta.,.beta.-diphenylacrylic acid esters

L29 ANSWER 37 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Proton magnetic resonance spectra of N-nitroso derivatives of sarcosine, proline, and iminodiacetic acid

L29 ANSWER 38 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Preparation of cyanoacetic acid esters

L29 ANSWER 39 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI p-Bromobenzenesulfonyloxyacetonitrile as the cyanomethylation agent for carboxylic acids

L29 ANSWER 40 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Determination of the reactivity of activated esters of amino acids by reaction with glycine-o-nitroanilide

L29 ANSWER 41 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Water-insoluble monoazo dyes

L29 ANSWER 42 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Peptide synthesis with the furfuryloxycarbonyl group as an amino-protecting group

L29 ANSWER 43 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Synthesis of potentially cytoactive amino acid amide mustards

L29 ANSWER 44 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Contribution to the general discussion on coupling methods

L29 ANSWER 45 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Doubling reactions during ring closure of peptides. V. Relative importance of steric hindrance and association through hydrogen bonds of tripeptides. Spectroscopic experiments for determination of conformation

L29 ANSWER 46 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Use of bifunctional catalysts in peptide and other syntheses

L29 ANSWER 47 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Peptides

L29 ANSWER 48 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Sultams. VII. Sultams of amino acids.

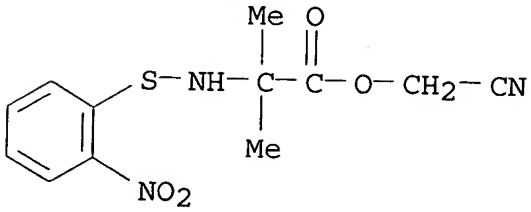
L29 ANSWER 49 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
TI Activated esters. VII. Syntheses of cyclic polypeptides. Cyclotetraglycyl and cyclohexaglycyl

=> d l29 30,38 cbib abs hitstr hitrn

L29 ANSWER 30 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
1980:426787 Document No. 93:26787 Some ester derivatives of 2-methylalanine as intermediates in peptide synthesis. Stewart, Frederick H. C. (Div. Protein Chem., CSIRO, Parkville, 3052, Australia). Australian Journal of Chemistry, 33(1), 121-9 (English) 1980. CODEN: AJCHAS. ISSN: 0004-9425.

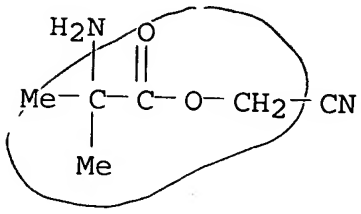
AB Nps-Aib-OH (Nps = o-O2NC6H4S, Aib = NHCMe2CO) was converted into esters Nps-Aib-OR [R = CH2C6H2Me3-2,4,6, C6H4NO2-p (Np), CH2CN], which were Nps-deblocked by HCl to give the corresponding H-Aib-OR.HCl (I). I were used in peptide coupling reactions in which the effects of steric hindrance assocd. with 2-methylalanine were considered. Enkephalin analog H-Tyr-Aib-Gly-Phe-Leu-OH was prepd. by coupling Z-Tyr(CH2Ph)-OH (Z = PhCH2O2C) to H-Aib-ONp, coupling the resulting Z-Tyr(CH2Ph)-Aib-ONp with H-Gly-Phe-Leu-OCH2Ph, and deblocking the resulting Z-Tyr(CH2Ph)-Aib-Gly-Phe-Leu-OCH2Ph by hydrogenolysis.

IT **73994-75-9P**
(prepn. and deblocking of)
RN 73994-75-9 ZCAPLUS
CN Alanine, 2-methyl-N-[(2-nitrophenyl)thio]-, cyanomethyl ester (9CI) (CA INDEX NAME)



IT **74010-28-9P**
(prepn. and peptide coupling reactions of)
RN 74010-28-9 ZCAPLUS

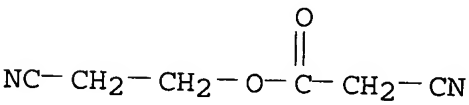
CN Alanine, 2-methyl-, cyanomethyl ester, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

IT **73994-75-9P**
(prepn. and deblocking of)
IT **74010-28-9P**
(prepn. and peptide coupling reactions of)

L29 ANSWER 38 OF 49 ZCAPLUS COPYRIGHT 2003 ACS on STN
1971:419669 Document No. 75:19669 Preparation of cyanoacetic acid esters. Etlis, V. S.; Degtyareva, L. M.; Trofimov, N. N. (USSR). Zhurnal Prikladnoi Khimii (Sankt-Peterburg, Russian Federation), 44(4), 937-9 (Russian) 1971. CODEN: ZPKHAB. ISSN: 0044-4618.
AB The reaction of 14 esters (ClCH2CO2R) with KCN in MeCN gave not only the expected NCCH2CO2R but appreciable amts. NCCH(CO2R)CH2CO2R (3-5% at 20.degree., 12-15% at 80.degree.).
IT **32815-81-9P**
(prepn. of)
RN 32815-81-9 ZCAPLUS
CN Acetic acid, cyano-, 2-cyanoethyl ester (6CI, 9CI) (CA INDEX NAME)



IT **32815-81-9P**
(prepn. of)